

## Freeform Search

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<b>Database:</b>	US Pre-Grant Publication Full-Text Database <b>US Patents Full-Text Database</b> US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins
<b>Term:</b>	
<b>Display:</b> <span style="border: 1px solid black; padding: 0 10px;">10</span> <b>Documents in Display Format:</b> <span style="border: 1px solid black; padding: 0 10px;">REV</span> <b>Starting with Number</b> <span style="border: 1px solid black; padding: 0 10px;">1</span>	
<b>Generate:</b> <input type="radio"/> Hit List <input checked="" type="radio"/> Hit Count <input type="radio"/> Side by Side <input type="radio"/> Image	

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Search
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### Search History

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**DATE:** Wednesday, July 18, 2007  
 [Purge Queries](#)  
 [Printable Copy](#)  
 [Create Case](#)

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=AND</i>			
<u>L13</u>	L12@ay>1998	35	<u>L13</u>
<u>L12</u>	L11 and l10	35	<u>L12</u>
<u>L11</u>	antiobod\$ or serum or immunoglobulin or monoclonal or polyclonal	284836	<u>L11</u>
<u>L10</u>	SdrG	46	<u>L10</u>
<u>L9</u>	L1 and SdrG	0	<u>L9</u>
<u>L8</u>	L2 and SdrG	5	<u>L8</u>
<u>L7</u>	L3 and SdrG	25	<u>L7</u>
<u>L6</u>	L5 and SdrG	5	<u>L6</u>
<u>L5</u>	hartford.in.	296	<u>L5</u>
<u>L4</u>	nieidhin.in.	2	<u>L4</u>
<u>L3</u>	hook.in.	1893	<u>L3</u>
<u>L2</u>	mccrea.in.	361	<u>L2</u>
<u>L1</u>	foster-t.in.	38	<u>L1</u>

END OF SEARCH HISTORY

## Refine Search

### Search Results -

Term	Documents
(15 NOT 16).PGPB,USPT,USOC,EPAB,JPAB,DWPI.	39
(L15 NOT L16 ).PGPB,USPT,USOC,EPAB,JPAB,DWPI.	39

Database:

US Pre-Grant Publication Full-Text Database  
 US Patents Full-Text Database  
 US OCR Full-Text Database  
 EPO Abstracts Database  
 JPO Abstracts Database  
 Derwent World Patents Index  
 IBM Technical Disclosure Bulletins

Search:

L17

Refine Search

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### Search History

DATE: Wednesday, July 18, 2007    [Purge Queries](#)    [Printable Copy](#)    [Create Case](#)

**Set Name Query**

side by side

**Hit Count**
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 result set

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=AND

<u>L17</u>	l15 not L16	39	<u>L17</u>
<u>L16</u>	L15@ay>1998	74	<u>L16</u>
<u>L15</u>	L14 and l11	113	<u>L15</u>
<u>L14</u>	l10 or Fbe	6066	<u>L14</u>
<u>L13</u>	L12@ay>1998	35	<u>L13</u>
<u>L12</u>	L11 and l10	35	<u>L12</u>
<u>L11</u>	antiobod\$ or serum or immunoglobulin or monoclonal or polyclonal	284836	<u>L11</u>
<u>L10</u>	SdrG	46	<u>L10</u>
<u>L9</u>	L1 and SdrG	0	<u>L9</u>
<u>L8</u>	L2 and SdrG	5	<u>L8</u>
<u>L7</u>	L3 and SdrG	25	<u>L7</u>
<u>L6</u>	L5 and SdrG	5	<u>L6</u>

L5 hartford.in.  
L4 nieidhin.in.  
L3 hook.in.  
L2 mccrea.in.  
L1 foster-t.in.

296 L5  
2 L4  
1893 L3  
361 L2  
38 L1

END OF SEARCH HISTORY

sdrgantibody.txt

? e au=foster, timothy

Ref	Items	Index-term
E1	12	AU=FOSTER, TIM J.
E2	1	AU=FOSTER, TIMONTHY J.
E3	17	AU=FOSTER, TIMOTHY
E4	1	AU=FOSTER, TIMOTHY A
E5	1	AU=FOSTER, TIMOTHY D.
E6	1	AU=FOSTER, TIMOTHY DAVID
E7	1	AU=FOSTER, TIMOTHY E
E8	49	AU=FOSTER, TIMOTHY J
E9	124	AU=FOSTER, TIMOTHY J.
E10	2	AU=FOSTER, TIMOTHY JAMES
E11	10	AU=FOSTER, TIMOTHY JOHN
E12	14	AU=FOSTER, TIMOTHY P
E13	17	AU=FOSTER, TIMOTHY P.
E14	2	AU=FOSTER, TIMOTHY PAUL
E15	1	AU=FOSTER, TIMOTHY R.V.
E16	1	AU=FOSTER, TIMOTHY. J.
E17	1	AU=FOSTER, TINA C.
E18	89	AU=FOSTER, TJ
E19	11	AU=FOSTER, TJ*
E20	2	AU=FOSTER, TL
E21	27	AU=FOSTER, TM
E22	2	AU=FOSTER, TM*
E23	1	AU=FOSTER, TOBIAS
E24	1	AU=FOSTER, TODD
E25	1	AU=FOSTER, TODD J.

Enter PAGE for more

? s e1-e3, e8-e11

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	12	AU=FOSTER, TIM J.
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	49	AU=FOSTER, TIMOTHY J
	124	AU=FOSTER, TIMOTHY J.
	2	AU=FOSTER, TIMOTHY JAMES
	10	AU=FOSTER, TIMOTHY JOHN
S1	215	S E1-E3, E8-E11

? s antiobod\$ or serum or immunoglobulin or monoclonal or polyclonal

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	0	ANTIOBOD\$
	3846004	SERUM
	1022729	IMMUNOGLOBULIN
	1319626	MONOCLONAL
	256894	POLYCLONAL
S2	5844286	S ANTIOBOD\$ OR SERUM OR IMMUNOGLOBULIN OR MONOCLONAL OR POLYCLONAL

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[illegible]

86	ANTI BOD?
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1319626	MONOCLONAL
256894	POLYCLONAL

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? s SdrG or Sdr or Fbe

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134	SDRG
7772	SDR
1055	FBE

S4 8909 S SDRG OR SDR OR FBE

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213349 FIBRINOGEN

S6 52 S S5 AND FIBRINOGEN

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>>>W: Duplicate detection is not supported for File 393.  
Records from unsupported files will be retained in the RD set.  
S7 22 RD (UNIQUE ITEMS)

? t s7/medium,k/1-22

>>>W: KWIC option is not available in file(s): 399  
7/K/1 (Item 1 from file: 5) Links

Fulltext available through: USPTO Full Text Retrieval Options

Biosis Previews(R)

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0019555755 Biosis No.: 200700215496

A panel of monoclonal antibodies recognizing the Staphylococcus epidermidis

fibrinogen-binding MSCRAMM SdrG

Author: Hall Andrea E; Patel Pratiksha R; Domanski Paul J; Prater Bradley D; Gorovits Elena L; Syribeys Peter J; Vernachio John H; Patti Joseph M; Hutchins Jeff T (Reprint)

Author Address: Inhibitex Inc, 9005 Westside Pkwy, Alpharetta, GA 30004 USA\*\*USA

Author E-mail Address: jhutchins@inhibitex.com

Journal: Hybridoma 26 ( 1 ): p 28-34 FEB 2007 2007

ISSN: 1554-0014

Document Type: Article

Record Type: Abstract

Language: English

A panel of monoclonal antibodies recognizing the Staphylococcus epidermidis fibrinogen-binding MSCRAMM SdrG

Abstract: ...stage contributing to the pathogenesis of this bacteria is the initial adherence to host tissue. SdrG is a cell-wall-anchored fibrinogen-binding adhesin of S. epidermidis that has been shown to be necessary for bacterial binding to fibrinogen-coated foreign bodies, such as catheters. Here we report the generation and characterization of a panel of monoclonal antibodies (MAbs) directed against this S. epidermidis virulence factor. Through the use of multiple in... ..that may prove to be beneficial in studies that address the precise biologic role of SdrG.

DESCRIPTORS:

Chemicals & Biochemicals: fibrinogen; ... ..monoclonal antibody... ..SdrG

>>>W: KWIC option is not available in file(s): 399

7/K/2 (Item 2 from file: 5) Links

Fulltext available through: American Society for Microbiology custom link

USPTO Full Text Retrieval Options

Biosis Previews(R)

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18943764 Biosis No.: 200600289159

Human immunoglobulin G recognizing fibrinogen-binding surface proteins is protective against both Staphylococcus aureus and Staphylococcus epidermidis infections in vivo

Author: Vernachio John H (Reprint); Bayer Arnold S; Ames Brenda; Bryant Dawn; Prater Bradley D; Syribeys Peter J; Gorovits Elena L; Patti Joseph M

Author Address: Inhibitex Inc, 9005 Westside Pkwy, Alpharetta, GA 30004 USA\*\*USA

Author E-mail Address: jvernachio@inhibitex.com

Journal: Antimicrobial Agents and Chemotherapy 50 ( 2 ): p 511-518 FEB 2006 2006

ISSN: 0066-4804

Document Type: Article

Record Type: Abstract

Language: English

Human immunoglobulin G recognizing fibrinogen-binding surface proteins is protective against both Staphylococcus aureus and Staphylococcus epidermidis infections in vivo

Abstract: A human donor-selected immunoglobulin G for intravenous injection (IGIV) product with elevated titers against the staphylococcal fibrinogen-binding MSCRAMM proteins ClfA and SdrG (INH-A21) was tested in vitro and in vivo. INH-A21 contained a significantly increased ability to inhibit the fibrinogen-binding activity of recombinant forms of both ClfA and SdrG. Evaluation of the opsonizing potential of INH-A21 was evaluated using fluorescently labeled bacteria; this...

DESCRIPTORS:

Chemicals & Biochemicals: ...immunoglobulin G... ..SdrG; ...  
...fibrinogen-binding surface proteins

>>>W: KWIC option is not available in file(s): 399

7/K/3 (Item 3 from file: 5) Links



sdrgantibody.txt

Fulltext available through: USPTO Full Text Retrieval Options  
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18192570 Biosis No.: 200500098483

A fibrinogen-binding protein of *Staphylococcus lugdunensis*

Author: Nilsson Martin; Bjerketorp Joakim; Guss Bengt; Frykberg Lars (Reprint)

Author Address: Dept Microbiol, Swedish Univ Agr Sci, POB 7025, SE-75007, Uppsala, Sweden\*\* Sweden

Author E-mail Address: lars.frykberg@mikrob.slu.se

Journal: FEMS Microbiology Letters 241 ( 1 ): p 87-93 December 1, 2004 2004

Medium: print

ISSN: 0378-1097

Document Type: Article

Record Type: Abstract

Language: English

A fibrinogen-binding protein of *Staphylococcus lugdunensis*

Abstract: A gene called *fbl*, encoding a *Staphylococcus lugdunensis* fibrinogen-binding protein, was identified by phage display. The encoded protein, *Fbl*, is a member of the Sdr-family, a group of staphylococcal cell surface proteins containing a characteristic serine-aspartate repeat region. The fibrinogen-binding domain was mapped to 313 amino acids, and shows, 62% identity to the corresponding region in clumping factor (*ClfA*) from *Staphylococcus aureus*. Anti-serum against *ClfA* cross-reacted with *Fbl*, and blocked *S. lugdunensis* adherence to fibrinogen. Twelve clinical isolates of *S. lugdunensis* analysed by Southern blot all had an *fbl*-like...

#### DESCRIPTORS:

Chemicals & Biochemicals: fibrinogen; ... ..fibrinogen-binding protein

>>>W: KWIC option is not available in file(s): 399

7/K/4 (Item 4 from file: 5) Links

Fulltext available through: USPTO Full Text Retrieval Options  
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18024813 Biosis No.: 200400395602

beta2-integrins mediate a novel form of chemoresistance in cycloheximide-induced U937 apoptosis

Author: Wu R-C; Wang Z (Reprint); Liu M-J; Chen D-F; Yue X-S

Author Address: Dept Biol Sci and Biotechnol, Tsing Hua Univ, Beijing, 100084, China\*\*China

Author E-mail Address: zwang@tsinghua.edu.cn

Journal: CMLS Cellular and Molecular Life Sciences 61 ( 16 ): p 2071-2082 August 2004 2004

Medium: print

ISSN: 1420-682X

Document Type: Article

Record Type: Abstract

Language: English

Abstract: ...leukaemic cell line U937, a novel form of chemoresistance, which we termed sudden drug resistance (SDR), was identified using Hoechst33258 staining, Western blott and DNA Ladder. CHXhigh (10-100 mug/ml) ... ..inhibited by short-term preincubation with CHXlow (2.5 mug/ml). Unlike typical multidrug resistance, SDR is not caused by reduced drug accumulation or altered protein expression, and may be associated... ..adhesion has been suggested to influence cell survival and prevent apoptosis. EDTA, or anti-CD18 monoclonal antibody, but not EGTA, acetylsalicylic acid or RGDS tetrapeptide, abrogated this homotypic aggregation and greatly increased CHX-induced apoptosis in a time-dependent manner, while fibrinogen and soluble intercellular adhesion molecule-1 exerted opposite effects. These results establish that beta2-integrin engagement is a key mediator of SDR, although it may

sdrgantibody.txt

be non-exclusive. This finding supplements the classical basis of chemoresistance and...

DESCRIPTORS:

Chemicals & Biochemicals: ...anti-CD18 monoclonal antibody...

Miscellaneous Terms: Concept Codes: sudden drug resistance {SDR}

>>>W: KWIC option is not available in file(s): 399

7/K/5 (Item 5 from file: 5) Links

Fulltext available through: USPTO Full Text Retrieval Options

Biosis Previews(R)

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17564571 Biosis No.: 200300519934

Methicillin-resistant Staphylococcus aureus isolates carrying pls invade host cells less efficiently than pls-negative MRSA isolates.

Author: Sinha B (Reprint); Juuti K; Werbeck C (Reprint); Kuusela P; Peters G (Reprint)

Author Address: Institute of Medical Microbiology, University Hospital of Muenster, Muenster, Germany\*\*Germany

Journal: Abstracts of the General Meeting of the American Society for Microbiology 103 p B-207 2003 2003

Medium: cd-rom

Conference/Meeting: 103rd American Society for Microbiology General Meeting Washington, DC, USA May 18-22, 2003; 20030518

Sponsor: American Society for Microbiology

ISSN: 1060-2011 \_(ISSN print)

Document Type: Meeting; Meeting Abstract

Record Type: Abstract

Language: English

Abstract: ...MSSA isolates. Pls (plasmin-sensitive) is a cell wall-anchored surface protein, belonging to the Sdr family of adhesins. Since adherence of pls-positive MRSA isolates to immobilized IgG, fibrinogen and Fn is reduced, we tested, whether this is also true for cellular invasiveness. Methods...

DESCRIPTORS:

Chemicals & Biochemicals: IgG {immunoglobulin G...

>>>W: KWIC option is not available in file(s): 399

7/K/6 (Item 6 from file: 5) Links

Biosis Previews(R)

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17309113 Biosis No.: 200300277832

MSCRAMM(R) protein mAb protects against S. epidermidis central venous catheter induced infection.

Author: Vernachio J (Reprint); Bryant D (Reprint); Hall A (Reprint); Patel P (Reprint); Domanski P (Reprint); Syribey P (Reprint); Gorovits E (Reprint); Wang J (Reprint); Robbins J (Reprint); Hutchins J (Reprint); Patti J (Reprint)

Author Address: Inhibitex, Inc., Alpharetta, GA, USA\*\*USA

Journal: Abstracts of the Interscience Conference on Antimicrobial Agents and Chemotherapy 42 p 32 2002 2002

Medium: print

Conference/Meeting: American Society for Microbiology (ASM) Annual Meeting on Infectious Disease San Diego, CA, USA September 27-30, 2002; 20020927

Sponsor: American Society for Microbiology

Document Type: Meeting; Meeting Abstract

Record Type: Abstract

Language: English

Abstract: ...both a reduction in the incidence and severity of disease. We have demonstrated that a monoclonal antibody (mAb) against the MSCRAMM(R) protein, Sdrg,

sdrgantibody.txt

inhibits the binding to human fibrinogen in vitro and also provides significant protection against methicillin resistant *S. epidermidis* (MRSE) challenge in...  
...infection model. Methods: Clinical efficacy was evaluated in a rat model of CVC-associated infection. SdrG mAb 59-59 (n=10) and a control mAb (n=13) were administered IV. 24... were infected (13/13). Conclusions: These data clearly demonstrate that a single infusion with a SdrG mAb can significantly prevent catheter associated MRSE bacteremia and subsequent hematogenous dissemination to target organs.

DESCRIPTORS:

Chemicals & Biochemicals: ...monoclonal antibodies... ...MSCRAMM protein  
monoclonal antibody

>>>W: KWIC option is not available in file(s): 399

7/K/7 (Item 7 from file: 5) Links

Biosis Previews(R)

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16972468 Biosis No.: 200200565979

Prevention of experimental *Staphylococcus epidermidis* (SE) endocarditis (IE) by passive immunotherapy with INH-A00021, a human IgG directed against staphylococcal fibrinogen-binding proteins

Author: Kupferwasser L I (Reprint); Prater B; Wang J; Ruckstuhl M J; Lee K; Gast D; Adams D; Patti J M; Bayer A S (Reprint)

Author Address: Harbor-UCLA Res. and Ed. Inst., Torrance, CA, USA\*\*USA

Journal: Abstracts of the Interscience Conference on Antimicrobial Agents and Chemotherapy 41 p 278 2001 2001

Medium: print

Conference/Meeting: 41st Annual Meeting of the Interscience Conference on Antimicrobial Agents and Chemotherapy Chicago, Illinois, USA September 22-25, 2001; 20010922

Document Type: Article; Meeting

Record Type: Abstract

Language: English

...SE) endocarditis (IE) by passive immunotherapy with INH-A00021, a human IgG directed against staphylococcal fibrinogen-binding proteins

Abstract: Background: SE is a major cause of endovascular infections, utilizing adhesins such as the fibrinogen-binding adhesin, SdrG, to bind to sites of endovascular damage. Purpose: INH-A00021 is a donor-selected, plasma-derived hyperimmune globulin containing elevated levels of IgG against the staphylococcal fibrinogen-binding proteins, SdrG, and ClfA. This study evaluated the efficacy of INH-A00021 in attenuating experimental SE IE... (p=0.0006). Also, the extent of bacteremia was significantly lower in animals receiving anti-SdrG, when compared to controls (p<0.01). Results of quantitative tissue cultures (mean log<sub>10</sub>CFU/g...

DESCRIPTORS:

Chemicals & Biochemicals: ...IgG {immunoglobulin G... ...SdrG--....

...fibrinogen-binding adhesion... ...staphylococcal fibrinogen-binding proteins

>>>W: KWIC option is not available in file(s): 399

7/K/8 (Item 8 from file: 5) Links

Fulltext available through: USPTO Full Text Retrieval Options

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15411492 Biosis No.: 200000129805

A bone sialoprotein-binding protein from *Staphylococcus aureus*: A member of the staphylococcal Sdr family

Author: Tung Hui-shan; Guss Bengt; Hellman Ulf; Persson Lena; Rubin Kristofer; Ryden Cecilia (Reprint)

Author Address: Department of Medical Biochemistry and Microbiology, Uppsala University, BMC, SE-751 23, Uppsala, Sweden\*\*Sweden

sdrgantibody.txt

Journal: Biochemical Journal 345 ( 3 ): p 611-619 Feb. 1, 2000 2000

Medium: print

ISSN: 0264-6021

Document Type: Article

Record Type: Abstract

Language: English

A bone sialoprotein-binding protein from Staphylococcus aureus: A member of the staphylococcal Sdr family

Abstract: ...acids, called BSP-binding protein (Bbp), which displays similarity to recently described proteins of the Sdr family from *S. aureus*. SdrC, SdrD and SdrE encode putative cell-surface proteins with no described ligand specificity. Bbp also shows similarity to a fibrinogen -binding protein from *S. epidermidis* called Fbe. A serine-aspartic acid repeat sequence was found close to the cell-wall-anchoring Leu... ..protein bound radiolabelled native BSP, and inhibited the binding of radiolabelled BSP to staphylococcal cells. Serum from patients suffering from bone and joint infection contained antibodies that reacted with the fusion...

DESCRIPTORS:

Chemicals & Biochemicals: Sdr;

>>>W: KWIC option is not available in file(s): 399

7/K/9 (Item 1 from file: 34) Links

Fulltext available through: American Society for Microbiology custom link

USPTO Full Text Retrieval Options

SciSearch(R) Cited Ref Sci

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09577298 Genuine Article#: 423CT No. References: 51

Expression of pls, a gene closely associated with the mecA gene of methicillin-resistant Staphylococcus aureus, prevents bacterial adhesion in vitro

Author: Savolainen K (REPRINT) ; Paulin L; Westerlund-wikstrom B; Foster TJ; Korhonen TK; Kuusela P

Corporate Source: Univ Helsinki, Div Gen Microbiol, Dept Biosci, POB 56/FIN-00014 Helsinki//Finland/ (REPRINT); Univ Helsinki, Div Gen Microbiol, Dept Biosci, FIN-00014 Helsinki//Finland/; Univ Helsinki, Inst Biotechnol, FIN-00014 Helsinki//Finland/; Univ Helsinki, Haartman Inst, Dept Bacteriol & Immunol, FIN-00014 Helsinki//Finland/; Univ Helsinki, Cent Hosp, HUCH Lab Diagnost, Div Clin Microbiol, Helsinki//Finland/; Univ Dublin Trinity Coll, Moyne Inst Prevent Med, Dept Microbiol, Dublin 2//Ireland/

Journal: INFECTION AND IMMUNITY, 2001, V 69, N5 (MAY), P 3013-3020

ISSN: 0019-9567 Publication date: 20010500

Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Abstract: ...distinct repeat regions, one of which was a serine-aspartate repeat characteristic of the Clf-Sdr family of surface proteins in staphylococci. The lengths of the repeat regions varied in different... ..digested DNA. A pls mutant constructed by allele replacement adhered well to immobilized fibronectin and immunoglobulin e, in contrast to the parental strain, suggesting that Pls could have a role in...

Identifiers-- ...FIBRINOGEN-BINDING PROTEIN; NUCLEOTIDE-SEQUENCE; CLUMPING FACTOR; INSERTIONAL INACTIVATION; ESCHERICHIA-COLI; REPEAT REGION; FIBRONECTIN; CLONING; DNA

>>>W: KWIC option is not available in file(s): 399

7/K/10 (Item 2 from file: 34) Links

Fulltext available through: USPTO Full Text Retrieval Options

SciSearch(R) Cited Ref Sci

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02147492 Genuine Article#: KE378 No. References: 43

INHIBITION OF PLATELET-ADHESION TO FIBRINOGEN IN FLOWING WHOLE-BLOOD BY ARG-GLY-ASP AND FIBRINOGEN GAMMA-CHAIN CARBOXY TERMINAL PEPTIDES

Author: HANTGAN RR; ENDENBURG SC; CAVERO I; MARGUERIE G; UZAN A; SIXMA JJ; DEGROOT  
Page 9

sdrgantibody.txt

PG

Corporate Source: WAKE FOREST UNIV,BOWMAN GRAY SCH MED,DEPT BIOCHEM,MED CTR  
BLVD/WINSTON SALEM//NC/27157; UNIV UTRECHT,DEPT HEMATOL/UTRECHT//NETHERLANDS/; RHONE  
POULENC RORER RD/VITRY//FRANCE/; INSERM,U127,HEMATOL LAB/GRENOBLE//FRANCE/  
Journal: THROMBOSIS AND HAEMOSTASIS , 1992 , V 68 , N6 ( DEC 7 ) , P 694-700

ISSN: 0340-6245

Language: ENGLISH Document Type: ARTICLE ( Abstract Available )

...OF PLATELET-ADHESION TO FIBRIN(OGEN) IN FLOWING WHOLE-BLOOD BY ARG-GLY-ASP AND  
FIBRINOGEN GAMMA-CHAIN CARBOXY TERMINAL PEPTIDES

Abstract: We have employed synthetic peptides with sequences corresponding to the  
integrin receptor-recognition regions of fibrinogen as inhibitors of platelet  
aggregation and adhesion to fibrinogen and fibrin-coated surfaces in flowing whole  
blood, using a rectangular perfusion chamber at wall... ...1,300 s-1. D-RGDW caused  
substantial inhibition of platelet aggregation and adhesion to fibrinogen and fibrin  
at both shear rates, although it was least effective at blocking platelet  
adhesion... ...300 s-1. RGDS was a weaker inhibitor, and produced a biphasic  
dose-response curve; SDRG was inactive. HHLGGAKQAGDV partially inhibited platelet  
aggregation and adhesion to fibrin(ogen) at both shear ...

Identifiers-- ...GLYCOPROTEIN-IIB-IIIA; VONWILLEBRAND-FACTOR; MONOCLONAL  
-ANTIBODIES; ARTIFICIAL SURFACES; BINDING; RECEPTOR; SUBENDOTHELIUM; COMPLEX; CELLS;  
FIBRONECTIN

Research Fronts: 91-2339 004 (PLATELET GLYCOPROTEIN-IIB-IIIA COMPLEX; FIBRINOGEN  
RECEPTOR ANTAGONIST; ANTIPLATELET ARG-GLY-ASP-CONTAINING PEPTIDE; SNAKE-VENOM  
PROTEIN ECHISTATIN)

91-5876 001...

>>>W: KWIC option is not available in file(s): 399

7/K/11 (Item 1 from file: 50) Links

Fulltext available through: USPTO Full Text Retrieval Options

CAB Abstracts

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0008126189 CAB Accession Number: 20013167686

Fibrinogen - and von willebrand factor-binding proteins in staphylococci.

Nilsson, M.

Department of Microbiology, Swedish University of Agricultural Sciences, Box 7025,  
S-750 07 Uppsala, Sweden.

Acta Universitatis Agriculturae Sueciae - Agraria ( 265 ): p.115

Publication Year: 2001

ISSN: 1401-6249

Publisher: Sveriges Lantbruksuniversitet (Swedish University of Agricultural  
Sciences) Uppsala , Sweden

ISBN: 91-576-5791-2

Language: English Record Type: Abstract

Document Type: Thesis

Fibrinogen - and von willebrand factor-binding proteins in staphylococci.

... genes, isolated from coagulase-negative staphylococci (CONS) associated with  
human infections, and their corresponding proteins. Fbe and Fbl are the main  
fibrinogen (Fg)-binding proteins of Staphylococcus epidermidis and S. lugdunensis ,  
respectively. Both proteins are members of the Sdr (SD-repeat containing protein)  
family, a subgroup of cell surface proteins in staphylococci with a... ... less  
perfect, tandemly repeated serine and aspartate residues. Sequence comparisons in  
the binding regions between Fbe and Fbl revealed low mutual similarity. However, Fbl  
is relatively conserved (63% identity) in the binding region compared to clumping  
factor A (ClfA), the prototype Sdr protein from S. aureus . The third gene, vwbl ,  
encodes a putative von willebrand factor (vwf... ... an overall organization, that  
is characteristic for cell surface proteins in staphylococci. The importance of Fbe,  
Fbl and vwbl for their respective organisms during the infection process is not  
known, but ... ... to extracellular matrix or plasma-coated biomaterials. Separate  
recombinant constructs, comprising the binding regions of Fbe and Fbl or separate  
antibodies directed against the binding regions of the proteins, were able... ...  
the adherence of S. epidermidis and S. lugdunensis , respectively, to immobilized

sdrgantibody.txt

Fg. The presence of fbe, fbl and vwbl genes is very common in clinical isolates of the respective species. In... these experiments, vwbp immobilized on a Sepharose-column was used to purify vwf from human serum. The gene vwbl was present in all tested strains of *S. aureus*.

Descriptors: ...fibrinogen;

>>>W: KWIC option is not available in file(s): 399

7/K/12 (Item 1 from file: 71) Links

Fulltext available through: USPTO Full Text Retrieval Options

ELSEVIER BIOBASE

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02747070 2004224218

betaSUB2-integrins mediate a novel form of chemoresistance in cycloheximide-induced U937 apoptosis

Wu R.-C.; Wang Z.; Liu M.-J.; Chen D.-F.; Yue X.-S.

Address: Z. Wang, Dept. of Biol. Sci. and Biotech., Tsinghua University, Beijing, China

Email: zwang@tsinghua.edu.cn

Journal: Cellular and Molecular Life Sciences, 61/16 (2071-2082), 2004, Switzerland

CODEN: CMLSF

ISSN: 1420-682X

Document Type: Article

Languages: English

Summary Languages: English

No. of References: 48

#### DESCRIPTORS:

Apoptosis; Cycloheximide; U937 cell; betaSUB2-integrin; Drug resistance; PI-3K

#### CLASSIFICATION CODE AND DESCRIPTION:

Modlular Sequence Databank Number: 87.2.1.5 - CANCER RESEARCH / TUMOUR BIOLOGY / Cellular Biology and Biochemistry / Immortalisation, senescence and apoptosis

87.4.1.15 - CANCER RESEARCH / TREATMENT / Chemotherapy / Resistance

87.4.1.11 - CANCER RESEARCH / TREATMENT / Treatment Monitoring and Evaluation

...leukaemic cell line U937, a novel form of chemoresistance, which we termed sudden drug resistance (SDR), was identified using Hoechst33258 staining, western blott and DNA Ladder. CHXSUPhigh (10-100 mug/ml)... inhibited by short-term preincubation with CHXSUBlow (2.5 mug/ml). Unlike typical multidrug resistance, SDR is not caused by reduced drug accumulation or altered protein expression, and may be associated... has been suggested to influence cell survival and prevent apoptosis. EDTA, or anti-CD 18 monoclonal antibody, but not EGTA, acetylsalicylic acid or RGDS tetrapeptide, abrogated this homotypic aggregation and greatly increased CHX-induced apoptosis in a time-dependent manner, while fibrinogen and soluble intercellular adhesion molecule-1 exerted opposite effects. These results establish that betaSUB2-integrin engagement is a key mediator of SDR, although it may be non-exclusive. This finding supplements the classical basis of chemoresistance and...

>>>W: KWIC option is not available in file(s): 399

7/K/13 (Item 1 from file: 155) Links

Fulltext available through: USPTO Full Text Retrieval Options

MEDLINE(R)

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15223135 PMID: 15583173

Protein FOG--a streptococcal inhibitor of neutrophil function.

Johansson Helena M; Morgelin Matthias; Frick Inga-Maria

Department of Cell and Molecular Biology, Section for Clinical and Experimental

sdrgantibody.txt

Infectious Medicine, BMC, B14, Lund University, S-221 84 Lund, Sweden.  
Microbiology (Reading, England) ( England ) Dec 2004 , 150 (Pt 12) p4211-21 ,  
ISSN: 1350-0872--Print Journal Code: 9430468  
Publishing Model Print

Document type: Journal Article; Research Support, Non-U.S. Gov't

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

...of group G streptococci (GGs) form aggregates when grown in vitro. Aggregating strains interact with fibrinogen, and this study reports the isolation of a novel self-associating and fibrinogen-binding protein of GGs, denoted protein FOG. Sequencing of the fog gene revealed structural similarity... ..of GGs express protein G, a protein known to interact with the constant region of immunoglobulin G and albumin. Surprisingly, a clinical isolate expressing protein G, but lacking protein FOG, was... ..negative strain from being killed. The antibactericidal property of protein FOG is dependent on its fibrinogen-binding activity. Thus, in plasma, FOG precipitates fibrinogen; and when added to whole blood, protein FOG triggers the formation of visible aggregates comprising fibrinogen and neutrophils that are disabled in their killing of the bacteria. Moreover, the results emphasize...

Descriptors: \*Bacterial Proteins--metabolism--ME; \*Blood--microbiology--MI; \*Carrier Proteins--metabolism--ME; \*Fibrinogen--metabolism--ME; \*Neutrophils --immunology--IM; \*Streptococcus--growth and development--GD

Chemical Name: Bacterial Proteins; Carrier Proteins; Fbe protein, bacteria; Fibrinogen

>>>W: KWIC option is not available in file(s): 399

7/K/14 (Item 1 from file: 393) Links

Beilstein Database - Abstracts

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Beilstein Abstract Id: 6577659

Title: Human Immunoglobulin G Recognizing Fibrinogen-Binding Surface Proteins Is Protective against both Staphylococcus aureus and Staphylococcus epidermidis  
Infections In Vivo

Document Type: Journal Record Type: Abstract

Author: Vernachio, John H.; Bayer, Arnold S.; Ames, Brenda; Bryant, Dawn; Prater, Bradley D.; Syribeys, Peter J.; Gorovits, Elena L.; Patti, Joseph M.

Citation: Antimicrob. Agents & Chemother. (2006) Series: 50-2, 511 - 518 CODEN:

AMACCQ Language: English

Abstract Language: English

Title: Human Immunoglobulin G Recognizing Fibrinogen-Binding Surface Proteins Is Protective against both Staphylococcus aureus and Staphylococcus epidermidis  
Infections In Vivo

Abstract: A human donor-selected immunoglobulin G for intravenous injection (IGIV) product with elevated titers against the staphylococcal fibrinogen-binding MSCRAMM proteins ClfA and SdrG (INH-A21) was tested in vitro and in vivo. INH-A21 contained a significantly increased ability to inhibit the fibrinogen-binding activity of recombinant forms of both ClfA and SdrG. Evaluation of the opsonizing potential of INH-A21 was evaluated using fluorescently labeled bacteria; this...

>>>W: KWIC option is not available in file(s): 399

7/K/15 (Item 2 from file: 393) Links

Beilstein Database - Abstracts

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Beilstein Abstract Id: 6471865

Title: beta 2 -integrins mediate a novel form of chemoresistance in cycloheximide-induced U937 apoptosis

Document Type: Journal Record Type: Abstract

Author: Wu, R.-C.; Wang, Z.; Liu, M.-J.; Chen, D.-F.; Yue, X.-S.

Citation: Cell. Mol. Life Sci (2004) Series: 61-16, 2071 - 2082 CODEN: CMLSFI

Language: English

sdrgantibody.txt

Abstract Language: English

Keywords: apoptosis; cycloheximide; U937 cell; Beta 2 -integrin; drug resistance; PI-3K

Abstract: ... leukaemic cell line U937, a novel form of chemoresistance, which we termed sudden drug resistance (SDR), was identified using Hoechst33258 staining, western blott and DNA Ladder. CHX high (10-100  $\mu$ g/ml) ... short-term preincubation with CHX low (2.5  $\mu$ g/ml). Unlike typical multidrug resistance, SDR is not caused by reduced drug accumulation or altered protein expression, and may be associated... adhesion has been suggested to influence cell survival and prevent apoptosis. EDTA, or anti-CD18 monoclonal antibody, but not EGTA, acetylsalicylic acid or RGDS tetrapeptide, abrogated this homotypic aggregation and greatly increased CHX-induced apoptosis in a time-dependent manner, while fibrinogen and soluble intercellular adhesion molecule-1 exerted opposite effects. These results establish that beta 2 -integrin engagement is a key mediator of SDR, although it may be non-exclusive. This finding supplements the classical basis of chemoresistance and...

>>>W: KWIC option is not available in file(s): 399

7/K/16 (Item 1 from file: 399) Links

CA SEARCH(R)

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144348882

CA: 144(19)348882p

PATENT

Immunogenic composition comprising a mixture of staphylococcal antigens and uses as vaccines

Inventor (Author): Castado, Cindy; Lecrenier, Nicolas Pierre Fernand; Neyt, Cecile Anne; Poolman, Jan

Location: Belg.

Assignee: GlaxoSmithKline Biologicals S.A.

Patent: PCT International ; WO 200632472 A2

Date: 20060330

Application: WO 2005EP10184 (20050920) \*GB 200421082 (20040922) \*GB 200421078

(20040922) \*GB 200421081 (20040922) \*GB 200421079 (20040922) \*GB 20053143 (20050215)

Pages: 132 pp.

CODEN: PIXXD2

Language: English

Patent Classifications:

Class: A61K-000/A

Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; LY; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; Designated Regional: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

>>>W: KWIC option is not available in file(s): 399

7/K/17 (Item 2 from file: 399) Links

CA SEARCH(R)

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141348821

CA: 141(21)348821f

PATENT

Staphylococcus epidermidis-derived hyperimmune serum reactive antigens and encoding nucleic acids for diagnosis and treatment of bacterial infection and for antagonist screening

Inventor (Author): Meinke, Andreas; Min, Bui Duc; Nagy, Eszter

Location: Austria

Assignee: Intercell AG

Patent: PCT International ; WO 200487746 A2

Date: 20041014

Application: WO 2004EP3398 (20040331) \*EP 2003450078 (20030331)



Pages: 196 pp.

CODEN: PIXXD2

Language: English

Patent Classifications:

Class: C07K-014/00A

Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW  
Designated Regional: BW; GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

>>>W: KWIC option is not available in file(s): 399

7/K/18 (Item 3 from file: 399) Links

CA SEARCH(R)

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139259972

CA: 139(17)259972x

PATENT

Monoclonal and polyclonal antibodies recognizing coagulase-negative staphylococcal proteins

Inventor (Author): Patti, Joseph M.; Hutchins, Jeff T.; Hall, Andrea; Domanski, Paul; Patel, Pratishka; Hook, Magnus; Robbins, Jeff; Vernachio, John; Bowden, Maria G.

Location: USA

Assignee: Inhibitex, Inc.; The Texas A & M University System

Patent: PCT International ; WO 200376470 A1 Date: 20030918

Application: WO 2003US6415 (20030305) \*US PV361324 (20020305)

Pages: 72 pp.

CODEN: PIXXD2

Language: English

Patent Classifications:

Class: C07K-016/00A; C07K-001/00B; C07K-002/00B; C07H-021/04B; A61K-039/395B; A61K-039/40B; A61K-039/00B; A61K-039/09B; A61K-039/085B

Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VC; VN; YU; ZA; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM  
Designated Regional: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

>>>W: KWIC option is not available in file(s): 399

7/K/19 (Item 1 from file: 357) Links

Fulltext available through: USPTO Full Text Retrieval Options

Derwent Biotech Res.

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0420861 DBA Accession No.: 2007-06799

A panel of monoclonal antibodies recognizing the Staphylococcus epidermidis fibrinogen-binding MSCRAMM SdrG hybridoma cell culture for recombinant monoclonal antibody production

Author: HALL AE; PATEL PR; DOMANSKI PJ; PRATER BD; GOROVITS EL; SYRIBEYS PJ; VERNACHIO JH; PATTI JM; HUTCHINS JT

Corporate Affiliate: Inhibitex Inc

Corporate Source: Hutchins JT, Inhibitex Inc, 9005 westside Pkwy, Alpharetta, GA 30004 USA

Journal: HYBRIDOMA ( 26, 1, 28-34 ) 2007

ISSN: 1554-0014

Language: English

A panel of monoclonal antibodies recognizing the Staphylococcus epidermidis fibrinogen-binding MSCRAMM SdrG hybridoma cell culture for recombinant monoclonal antibody production

Abstract: ...stage contributing to the pathogenesis of this bacteria is the initial adherence to host tissue. SdrG is a cell-wall-anchored fibrinogen-binding adhesin of S. epidermidis that has been shown to be necessary for bacterial binding to fibrinogen-coated foreign bodies, such as catheters. Here we report the generation and characterization of a panel of monoclonal antibodies (MAbs) directed against this S. epidermidis virulence factor. Through the use of multiple in... ..that may prove to be beneficial in studies that address the precise biologic role of SdrG. (7 pages)

Descriptors: Staphylococcus epidermidis fibrinogen-binding MSCRAMM SdrG -specific recombinant monoclonal antibody prep., purification, characterization, plasmid-mediated gene transfer, expression in Lactococcus lactis, hybridoma, mouse immunization...

>>>W: KWIC option is not available in file(s): 399

7/K/20 (Item 2 from file: 357) Links

Fulltext available through: USPTO Full Text Retrieval Options

Derwent Biotech Res.

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0358809 DBA Accession No.: 2005-04513

A fibrinogen-binding protein of Staphylococcus lugdunensis identification and production of a recombinant fibrinogen binding protein from Staphylococcus lugdunensis using phage display and recombinant technology

Author: NILSSON M; BJERKETORP J; GUSS B; FRYKBERG L

Corporate Affiliate: Swedish Univ Agr Sci

Corporate Source: Frykberg L, Swedish Univ Agr Sci, Dept Microbiol, POB 7025, SE-75007 Uppsala, Sweden

Journal: FEMS MICROBIOLOGY LETTERS ( 241, 1, 87-93 ) 2004

ISSN: 0378-1097

Language: English

A fibrinogen-binding protein of Staphylococcus lugdunensis identification and production of a recombinant fibrinogen binding protein from Staphylococcus lugdunensis using phage display and recombinant technology

Abstract: AUTHOR ABSTRACT - A gene called fbl, encoding a Staphylococcus lugdunensis fibrinogen-binding protein, was identified by phage display. The encoded protein, Fbl, is a member of the Sdr-family, a group of staphylococcal cell surface proteins containing a characteristic serine-aspartate repeat region. The fibrinogen-binding domain was mapped to 313 amino acids, and shows, 62% identity to the corresponding region in clumping factor (ClfA) from Staphylococcus aureus. Anti- serum against ClfA cross-reacted with Fbl, and blocked S. lugdunensis adherence to fibrinogen. Twelve clinical isolates of S. lugdunensis analysed by Southern blot all had an fbl-like...

Descriptors: Staphylococcus lugdunensis, recombinant fibrinogen binding protein, prep, isol., characterization, phage display, fbl gene identification, Southern blot bacterium surface display...

>>>W: KWIC option is not available in file(s): 399

7/K/21 (Item 3 from file: 357) Links

Derwent Biotech Res.

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0324377 DBA Accession No.: 2003-25518 PATENT

New antibody recognizing a Staphylococcus epidermidis protein comprising SdrG N1N2N3, SdrG N2N3 or SdrGTR2 useful for preparing a composition for treating or preventing a coagulase-negative staphylococcal infection chimeric antibody, humanized antibody, monoclonal antibody and single chain antibody production for vaccine, gene therapy and therapy

sdrgantibody.txt

Author: PATTI J M; HUTCHINS J T; HALL A; DOMANSKI P; PATEL P; HOOK M; ROBBINS J;  
VERNACHIO J; BOWDEN M G  
Patent Assignee: INHIBITEX INC; UNIV TEXAS A and M SYSTEM 2003  
Patent Number: WO 200376470 Patent Date: 20030918 WPI Accession No.: 2003-722324  
( 200368 )

Priority Application Number: US 361324 Application Date: 20020305  
National Application Number: WO 2003US6415 Application Date: 20030305  
Language: English

New antibody recognizing a Staphylococcus epidermidis protein comprising SdrG N1N2N3, SdrG N2N3 or SdrGTR2 useful for preparing a composition for treating or preventing a coagulase-negative Staphylococcal infection chimeric antibody, humanized antibody, monoclonal antibody and single chain antibody production for vaccine, gene therapy and therapy

Abstract: DERWENT ABSTRACT: NOVELTY - An isolated antibody (I) that recognizes a protein from Staphylococcus epidermidis comprising SdrG N1N2N3, SdrG N2N3 or SdrGTR2, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) isolated... ..treating or preventing a coagulase-negative Staphylococcal infection; (7) an isolated S. epidermidis protein comprising SdrG N1N2N3, SdrG N2N3 or SdrGTR2; (8) eliciting an immunogenic reaction in a human or animal; (9) a... ..epidermidis protein; and (10) an isolated nucleic acid sequence encoding an S. epidermidis protein comprising SdrG N1N2N3, SdrG N2N3 or SdrGTR2. BIOTECHNOLOGY - Preferred Antibody: The antibody (I) is selected from chimeric, murine, humanized or human monoclonal antibodies. (I) is a single chain monoclonal antibody. (I) binds to the S. epidermidis SdrG protein. (I) recognizes an amino acid sequence selected from the fully defined sequence comprising 560... ..or 951 (S6) base pairs, respectively, as given in the specification. (II) and (III) are monoclonal antibodies. Preferred Kit: The kit comprises means for detecting binding by the antibody, which comprises a detectable label linked to the antibody. Preferred Protein: The isolated S. epidermidis protein comprising SdrG N1N2N3, SdrG N2N3 or SdrGTR2 comprises an amino acid sequence selected from S1-S3 encoded by a ... ..Staphylococcal infection in a human or an animal and inhibits binding of Staphylococcal bacteria to fibrinogen, useful for preparing a composition for treating or preventing a coagulase-negative Staphylococcal infection. The monoclonal antibodies (II) and (III) comprising 1092 amino acids and 549 amino acids, respectively are also... ..for treating or preventing a coagulase-negative Staphylococcal infection. An isolated S. epidermidis protein comprising SdrG N1N2N3, SdrG N2N3 or SdrGTR2 is administered to a human or animal to elicit an immune reaction...

Descriptors: Staphylococcus sp. epidermis-specific chimeric antibody, humanized antibody, monoclonal antibody, single chain antibody prep., appl. vaccine, gene therapy, therapy antibody engineering antibody engineering protein...

>>>W: KWIC option is not available in file(s): 399  
7/K/22 (Item 1 from file: 149) Links  
TGG Health&wellness DB(SM)  
(c) 2007 The Gale Group. All rights reserved.  
01988263 Supplier Number: 73924880 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
whole genome sequencing of meticillin-resistant Staphylococcus aureus.

Kuroda, Makoto; Ohta, Toshiko; Uchiyama, Ikuo; Baba, Tadashi; Yuzawa, Harumi;  
Kobayashi, Ichizo; Cui, Longzhu; Oguchi, Akio; Aoki, Ken-ichi; Nagai, Yoshimi; Lian,  
JianQi; Ito, Teruyo; Kanamori, Mutsumi; Matsumaru, Hiroyuki; Maruyama, Atsushi;  
Murakami, Hiroyuki; Hosoyama, Akira; Mizutani-Ui, Yoko; Takahashi, Noriko K; Sawano,  
Toshihiko; Inoue, Ryu-ichi; Kaito, Chikara; Sekimizu, Kazuhisa; Hirakawa, Hideki;  
Kuhara, Satoru; Goto, Susumu; Yabuzaki, Junko; Kanehisa, Minoru; Yamashita, Atsushi;  
Oshima, Kenshiro; Furuya, Keiko; Yoshino, Chie; Shiba, Tadayoshi; Hattori, Masahira  
; Ogasawara, Naotake; Hayashi, Hideo; Hiramatsu, Keiichi  
The Lancet , 357 , 9264 , 1225  
April 21 ,  
2001

Publication Format: Magazine/Journal; Refereed  
Page 16

ISSN: 0099-5355

Language: English

Record Type: Fulltext; Abstract Target Audience: Professional

Word Count: 10338 Line Count: 01076

Descriptors: Staphylococcus aureus--Genetic aspects; Genetic recombination--Physiological aspects; Drug resistance--Genetic aspects  
 File Segment: HI File 149

...wall sorting signal in N315 and Mu50 genomes (table 4). These include seven known adhesins: fibrinogen-binding proteins ClfA, ClfB, and SdrC-D-E, and fibronectin-binding proteins FnB A and FnB B...

...to form clusters at several loci in the genome rather than being randomly distributed. The fibrinogen-binding proteins are characteristic in their possession of serine-aspartate repeats that precede the LPXTG...

...similar to Streptococcus pyogenes myosin-reactive protein, (30) which is known to react with the serum of patients with acute rheumatic fever. The other three open reading frames (SA1751, SA0841, and... Ryden C. A bone sialoprotein-binding protein from Staphylococcus aureus: a member of the staphylococcal Sdr family. Biochem J 2000; 345: 611-19.

(28) Schneewind O, Model P, Fischetti VA. Sorting...

haemolysin	SAS065	
Probable haemolysin		SA1973
g-haemolysin components		SA2207, 2208, 2209
Adhesins		
Ser-Asp rich fibrinogen-binding proteins		SA0742, 2423, 0519, 0520, 0521
Probable adhesin		SA0587
Possible extracellular matrix binding proteins		SA0744, 0745
Possible fibrinogen-binding proteins		SA1000, 1003, 1004
Probable extracellular matrix binding proteins		SA1267, 1268
Elastin-binding protein...		

...adhesion proteins SA2459, 2460, 2461, 2462

Others		
Myosin-crossreactive MHC class II-like protein		SA0102
Immunoglobulin G binding protein A		SA0107
Possible siderophore biosynthesis proteins		SA0116, 0117
Probable capsular polysaccharide		SA0126...
d-haemolysin	hld	
Probable haemolysin		
g-haemolysin components		hlgA, hlgC, hlgB
Adhesins		
Ser-Asp rich fibrinogen-binding proteins		clfA, clfB, sdrC, sdrD, sdrE
Probable adhesin		
Possible extracellular matrix binding proteins		
Possible fibrinogen-binding proteins		
Probable extracellular matrix binding proteins		ebhA, ebhB
Elastin-binding protein		ebpS

Fibronectin-binding...

...Intercellular adhesion proteins

icaA, icaD, icaB, icaC

Others

Myosin-crossreactive MHC class

II-like protein

Immunoglobulin G binding protein A

spa

Possible siderophore biosynthesis  
proteinsProbable capsular polysaccharide  
synthesis proteins

Capsular...

...toxin 1

SaPI<sub>n</sub>1/SaPI<sub>m</sub>1

d-haemolysin

Probable haemolysin

g-haemolysin components

Adhesins

Ser-Asp rich fibrinogen-binding proteins

Probable adhesin

Possible extracellular matrix  
binding proteins

Possible fibrinogen-binding proteins

Probable extracellular matrix  
binding proteins

Elastin-binding protein

Fibronectin-binding proteins

Intercellular adhesion proteins

Others

Myosin-crossreactive MHC class

II-like protein

Immunoglobulin G binding protein A

Possible siderophore biosynthesis  
proteinsProbable capsular polysaccharide  
synthesis proteins

Capsular polysaccharide...

...cells

Probable haemolysin

Unknown

g-haemolysin components

Destruction of blood cells

Adhesins

Ser-Asp rich fibrinogen

-binding proteins Cellular adhesion onto

Probable adhesin

host tissues

Cellular adhesion onto

host tissues

Possible extracellular matrix  
binding proteins

Cellular adhesion onto

host tissues

Possible fibrinogen-binding proteins

Unknown

Probable extracellular matrix  
binding proteins

Unknown

Elastin-binding protein

Cellular adhesion onto...

...infected tissues

Others

Myosin-crossreactive MHC class

Potential immune disorder  
in host

II-like protein

Immunoglobulin

sdrgantibody.txt  
G binding protein A      Potential immune disorder  
   in host  
Possible siderophore biosynthesis      Iron uptake  
proteins...

STID

RESULT 23 for SEQ ID NO: 16

ABP40469

ID ABP40469 standard; protein; 930 AA.

XX

AC ABP40469;

XX

DT 24-JUL-2002 (first entry)

XX

DE Staphylococcus epidermidis ORF amino acid sequence SEQ ID NO:5314.

XX

KW Staphylococcus epidermidis; open reading frame; ORF; bacterial infection;

KW antibacterial; gene therapy.

XX

OS Staphylococcus epidermidis.

XX

PN US6380370-B1.

XX

PD 30-APR-2002.

XX

PF 13-AUG-1998; 98US-00134001.

XX

PR 14-AUG-1997; 97US-0055779P.

PR 08-NOV-1997; 97US-0064964P.

XX

PA (GENO-) GENOME THERAPEUTICS CORP.

XX

PI Doucette-Stamm LA, Bush D;

XX

DR WPI; 2002-381255/41.

DR N-PSDB; ABN93014.

XX

PT Novel isolated nucleic acid encoding a Staphylococcus epidermis

PT polypeptide, useful for diagnosing and treating bacterial infections.

XX

PS Disclosure; SEQ ID NO 5314; 267pp; English.

XX

CC ABN90538 to ABN93374 represent Staphylococcus epidermidis open reading

CC frame (ORF) nucleic acid sequences which encode the amino acid sequences

CC given in ABP35124 to ABP37960. The S. epidermidis sequences have

CC antibacterial activity and can be used in gene therapy. The sequences can

CC also be used in the diagnosis and treatment of bacterial infections,

CC particularly S. epidermidis infections. The sequences can be used to

CC screen for compounds able to interfere with the S. epidermidis life cycle

CC or inhibit S. epidermidis infection. N.B. The sequence data for this

CC patent did not form part of the printed specification, but was obtained

CC in electronic format directly from the USPTO web site

XX

SQ Sequence 930 AA;

Query Match 100.0%; Score 51; DB 5; Length 930;

Best Local Similarity 100.0%; Pred. No. 13;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9

|||||||

Db 369 TYTFTDYVD 377

#### RESULT 24

ADS06014

ID ADS06014 standard; protein; 930 AA.

XX

AC ADS06014;

XX

DT 04-NOV-2004 (first entry)

XX

DE Staphylococcus epidermis polypeptide seqid 5309.

XX

KW antibacterial; vaccine; antisense therapy; Staphylococcus epidermidis;

KW recombinant expression vector; infection; computer readable medium;

KW computer based system.

XX

OS Staphylococcus epidermidis.

XX

PN US2004147734-A1.

XX

PD 29-JUL-2004.

XX

PF 01-DEC-2003; 2003US-00724972.

XX

PR 08-NOV-1997; 97US-0064964P.

PR 13-AUG-1998; 98US-00134001.

PR 29-NOV-1999; 99US-00450969.

XX

PA (DOUC/) DOUCETTE-STAMM L.

PA (BUSH/) BUSH D.

XX

PI Doucette-Stamm L, Bush D;

XX

DR WPI; 2004-580138/56.

DR N-PSDB; ADS02242.

XX



PT New isolated polypeptide and encoding nucleic acid derived from  
PT Staphylococcus epidermidis, useful for diagnosing, preventing and/or  
PT treating an S. epidermidis bacterial infection.

XX

PS Claim 17; SEQ ID NO 5309; 741pp; English.

XX

CC The invention describes an isolated nucleic acid comprising a nucleotide  
CC sequence with any of 3772 fully defined nucleotide sequences (SEQ ID NO:  
CC 1-3772) and encoding an Staphylococcus epidermidis polypeptide with any  
CC of 3772 fully defined amino acid sequences (SEQ ID NO: 3772-7544) as  
CC given in the specification. Also described are: a recombinant expression  
CC vector; a cell comprising a recombinant expression vector of (1);  
CC producing an S. epidermidis polypeptide; an isolated nucleic acid  
CC comprising a nucleotide sequence of at least 8 nucleotides in length; a  
CC vaccine composition for prevention or treatment of an S. epidermidis  
CC infection, comprising a nucleic acid cited above and a carrier; treating  
CC a subject for S. epidermidis infection; a recombinant or substantially  
CC pure preparation of an S. epidermidis polypeptide or its fragment; a  
CC vaccine composition for prevention or treatment of an S. epidermidis  
CC infection; detecting the presence of a Staphylococcus nucleic acid in a  
CC sample; a computer readable medium having recorded in it the nucleotide  
CC sequences with SEQ ID NO: 1-3772 or its fragments; a computer based  
CC system for identifying fragments of the Staphylococcus genome of  
CC commercial importance; a computer based system for identifying fragments  
CC of the Staphylococcus plasmids of commercial importance; identifying  
CC commercially important nucleic acid fragments of the Staphylococcus  
CC genome and/or plasmids; and identifying an expression modulating fragment  
CC of the Staphylococcus genome and/or plasmids. The methods and  
CC compositions of the present invention are useful for the diagnosis,  
CC prevention and/or treatment of an Staphylococcal epidermidis bacterial  
CC infection. This is the amino acid sequence of a S. epidermis protein of  
CC the invention.

XX

SQ Sequence 930 AA;

Query Match 100.0%; Score 51; DB 8; Length 930;  
Best Local Similarity 100.0%; Pred. No. 13;  
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9

|||||||

Db 369 TYTFTDYVD 377

ESULT 25

AEI12097

ID AEI12097 standard; protein; 930 AA.

XX  
 AC AEI12097;  
 XX  
 DT 10-AUG-2006 (first entry)  
 XX  
 DE Staphylococcus epidermidis protein amino acid sequence - SEQ ID 5309.  
 XX  
 KW staphylococcus infection; bacterial infection; antibacterial; vaccine;  
 KW diagnostic.  
 XX  
 OS Staphylococcus epidermidis.  
 XX  
 PN US7060458-B1.  
 XX  
 PD 13-JUN-2006.  
 XX  
 PF 29-NOV-1999; 99US-00450969.  
 XX  
 PR 14-AUG-1997; 97US-0055779P.  
 PR 08-NOV-1997; 97US-0064964P.  
 PR 13-AUG-1998; 98US-00134001.  
 XX  
 PA (AMHP ) WYETH.  
 XX  
 PI Doucette-Stamm L, Bush D;  
 XX  
 DR WPI; 2006-413026/42.  
 DR N-PSDB; AEI08325.  
 XX  
 PT New nucleic acid encoding Staphylococcus epidermidis polypeptide, useful  
 PT for detecting, treating and preventing pathological conditions resulting  
 PT from bacterial infections.  
 XX  
 PS Disclosure; SEQ ID NO 5309; 588pp; English.  
 XX  
 CC The invention comprises the amino acid and coding sequences of  
 CC Staphylococcus epidermidis proteins, useful for detecting, treating, and  
 CC preventing (e.g. vaccine) bacterial infections. The present amino acid  
 CC sequence represents a Staphylococcus epidermidis protein of the  
 CC invention.  
 XX  
 SQ Sequence 930 AA;

Query Match 100.0%; Score 51; DB 10; Length 930;  
 Best Local Similarity 100.0%; Pred. No. 13;  
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9  
|||||||  
Db 369 TYTFTDYVD 377

RESULT 39

AAY08642

ID AAY08642 standard; protein; 1315 AA.

XX

AC AAY08642;

XX

DT 20-MAR-2003 (revised)

DT 09-AUG-1999 (first entry)

XX

DE S. aureus SdrD protein.

XX

KW Fibrinogen-binding protein; alpha chain; beta chain; ClfB; SdrC; SdrD;

KW SdrE; fibrinogen; medical device; competitive inhibitor; pharmaceutical;

KW treatment; infection; septicemia; osteomyelitis; mastitis; endocarditis;

KW extracellular matrix; vascular graft; vascular stent; vaccine;

KW intravenous catheter; artificial heart valve; cardiac assist device;

KW antibacterial.

XX

OS Staphylococcus aureus.

XX

PN WO9927109-A2.

XX

PD 03-JUN-1999.

XX

PF 25-NOV-1998; 98WO-US025246.

XX

PR 26-NOV-1997; 97US-0066815P.

PR 31-AUG-1998; 98US-0098427P.

XX

PA (INHI-) INHIBITEX INC.

PA (FORF-) FORFAS T/A BIORESEARCH IRELAND.

PA (TEXA ) UNIV TEXAS A & M.

PA (PATT/) PATTI J M.

PA (FOST/) FOSTER T J.

PA (JOSE/) JOSEFSSON E.

PA (EIDH/) EIDHIN D N.

PA (HOOK/) HOOK M A O.

PA (PERK/) PERKINS S E.

XX

PI Patti JM, Foster TJ, Josefsson E, Eidhin DN, Hook MAO;

PI Perkins SE;

XX

DR WPI; 1999-357844/30.

DR N-PSDB; AAX77593.

XX

PT Staphylococcus aureus fibrinogen-binding proteins for treating

PT septicemia, osteomyelitis, mastitis or endocarditis.

XX

PS Claim 8; Fig 8; 143pp; English.

XX

CC This invention describes novel Staphylococcus aureus fibrinogen-binding  
CC proteins that bind both the alpha and beta fibrinogen chains. The  
CC proteins (and their encoding nucleic acids are ClfB, SdrC, SdrD and  
CC SdrE). Staphylococcus aureus is thought to utilize fibrinogen to adhere  
CC to medical devices, binding proteins that bind both the alpha and beta  
CC fibrinogen chains (ClfB, SdrC, SdrD and SdrE) can therefore be used as  
CC competitive inhibitors to block this binding. Antibodies against ClfB,  
CC SdrC, SdrD and SdrE inhibit ClfB, SdrC, SdrD and SdrE mediated binding.  
CC The proteins of the invention can be used in a pharmaceutical composition  
CC for the treatment of Staphylococcus aureus infection e.g. septicemia,  
CC osteomyelitis, mastitis or endocarditis or to inhibit the binding of S.  
CC aureus to the extracellular matrix. The proteins or their fragments may  
CC be used to coat a medical device to reduce the S. aureus infection of an  
CC indwelling medical device, especially where the medical device is  
CC selected from the group consisting of vascular grafts, vascular stents,  
CC intravenous catheters, artificial heart valves, and cardiac assist  
CC devices. ClfB, SdrC, SdrD, SdrE, or an active fragment, subdomain or  
CC encoding gene may be used as a vaccine. The DS (aspartate serine) repeat  
CC region or a gene encoding it may be used as an identifying probe for the  
CC identification of genes and encoding proteins from Staphylococcus aureus  
CC (other than ClfA), S. hemolyticus, S. lugdenensis, and S. schleriferi.  
CC The proteins of the invention have antibacterial activity. (Updated on 20  
CC -MAR-2003 to correct PA field.)

XX

SQ Sequence 1315 AA;

Query Match 100.0%; Score 51; DB 2; Length 1315;

Best Local Similarity 100.0%; Pred. No. 19;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9

|||||||

Db 339 TYTFTDYVD 347

RESULT 11

O70022\_STAEP

ID O70022\_STAEP PRELIMINARY; PRT; 1092 AA.

AC O70022;  
 DT 01-AUG-1998, integrated into UniProtKB/TrEMBL.  
 DT 01-AUG-1998, sequence version 1.  
 DT 13-JUN-2006, entry version 30.  
 DE Fibrinogen-binding protein precursor.  
 OS Staphylococcus epidermidis.  
 OC Bacteria; Firmicutes; Bacillales; Staphylococcus.  
 OX NCBI\_TaxID=1282;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE.  
 RC STRAIN=HB;  
 RX MEDLINE=98261511; PubMed=9596732;  
 RA Nilsson M., Frykberg L., Flock J.I., Pei L., Lindberg M., Guss B.;  
 RT "A fibrinogen-binding protein of Staphylococcus epidermidis.";  
 RL Infect. Immun. 66:2666-2673(1998).  
 CC -----  
 CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
 CC Distributed under the Creative Commons Attribution-NoDerivs License  
 CC -----  
 DR EMBL; Y17116; CAA76638.1; -, Genomic\_DNA.  
 DR PIR; T30214; T30214.  
 DR HSSP; Q53653; 1N67.  
 DR SMR; O70022; 278-598.  
 DR GO; GO:0009986; C:cell surface; IEA.  
 DR GO; GO:0005618; C:cell wall; IEA.  
 DR GO; GO:0016020; C:membrane; IEA.  
 DR InterPro; IPR008966; Adhes\_bact.  
 DR InterPro; IPR008454; Cna\_B.  
 DR InterPro; IPR005877; Gpos\_YSIRK.  
 DR InterPro; IPR001899; Gram\_pos\_anchor.  
 DR Pfam; PF05738; Cna\_B; 2.  
 DR Pfam; PF00746; Gram\_pos\_anchor; 1.  
 DR Pfam; PF04650; YSIRK\_signal; 1.  
 DR TIGRFAMs; TIGR01167; LPXTG\_anchor; 1.  
 DR TIGRFAMs; TIGR01168; YSIRK\_signal; 1.  
 DR PROSITE; PS50847; GRAM\_POS\_ANCHORING; 1.  
 KW Cell wall; Peptidoglycan-anchor; Signal.  
 FT SIGNAL 1 51 Potential.  
 FT CHAIN 52 1092 fibrinogen-binding protein.  
 SQ SEQUENCE 1092 AA; 119293 MW; 6542BC39AAD8B984 CRC64;

Query Match 100.0%; Score 51; DB 2; Length 1092;  
 Best Local Similarity 100.0%; Pred. No. 1.7;  
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9

|||||||  
Db 372 TYTFTDYVD 380

RESULT 4

US-09-147-405B-13

; Sequence 13, Application US/09147405B

; Patent No. 6733758

; GENERAL INFORMATION:

; APPLICANT: Guss, Bengt

; APPLICANT: Nilsson, Martin

; APPLICANT: Frykberg, Lars

; APPLICANT: Flock, Jan-Ingmar

; APPLICANT: Lindberg, Martin

; TITLE OF INVENTION: Fibrinogen Binding Protein Originating from

; TITLE OF INVENTION: Coagulase-Negative Staphylococcus

; FILE REFERENCE: guss 09/147405

; CURRENT APPLICATION NUMBER: US/09/147,405B

; CURRENT FILING DATE: 1999-04-11

; PRIOR APPLICATION NUMBER: PCT/SE97/10191

; PRIOR FILING DATE: 1997-06-18

; PRIOR APPLICATION NUMBER: SE 9602496-3

; PRIOR FILING DATE: 1996-06-20

; NUMBER OF SEQ ID NOS: 15

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 13

; LENGTH: 582

; TYPE: PRT

; ORGANISM: Staphylococcus epidermidis

US-09-147-405B-13

Query Match 100.0%; Score 51; DB 2; Length 582;

Best Local Similarity 100.0%; Pred. No. 1.7;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9

|||||||  
Db 298 TYTFTDYVD 306

RESULT 5

US-09-147-405B-11

; Sequence 11, Application US/09147405B

; Patent No. 6733758

; GENERAL INFORMATION:

; APPLICANT: Guss, Bengt

; APPLICANT: Nilsson, Martin

; APPLICANT: Frykberg, Lars

; APPLICANT: Flock, Jan-Ingmar  
; APPLICANT: Lindberg, Martin  
; TITLE OF INVENTION: Fibrinogen Binding Protein Originating from  
; TITLE OF INVENTION: Coagulase-Negative Staphylococcus  
; FILE REFERENCE: guss 09/147405  
; CURRENT APPLICATION NUMBER: US/09/147,405B  
; CURRENT FILING DATE: 1999-04-11  
; PRIOR APPLICATION NUMBER: PCT/SE97/10191  
; PRIOR FILING DATE: 1997-06-18  
; PRIOR APPLICATION NUMBER: SE 9602496-3  
; PRIOR FILING DATE: 1996-06-20  
; NUMBER OF SEQ ID NOS: 15  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 11  
; LENGTH: 593  
; TYPE: PRT  
; ORGANISM: Staphylococcus epidermidis  
US-09-147-405B-11

Query Match 100.0%; Score 51; DB 2; Length 593;  
Best Local Similarity 100.0%; Pred. No. 1.8;  
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9  
|||  
Db 305 TYTFTDYVD 313

#### RESULT 6

US-09-134-001C-5314

; Sequence 5314, Application US/09134001C  
; Patent No. 6380370  
; GENERAL INFORMATION:  
; APPLICANT: Lynn Doucette-Stamm et al  
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES  
RELATING TO STAPHYLOCOCCUS  
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND  
THERAPEUTICS  
; FILE REFERENCE: GTC-007  
; CURRENT APPLICATION NUMBER: US/09/134,001C  
; CURRENT FILING DATE: 1998-08-13  
; PRIOR APPLICATION NUMBER: US 60/064,964  
; PRIOR FILING DATE: 1997-11-08  
; PRIOR APPLICATION NUMBER: US 60/055,779  
; PRIOR FILING DATE: 1997-08-14  
; NUMBER OF SEQ ID NOS: 5674  
; SEQ ID NO 5314

; LENGTH: 930  
; TYPE: PRT  
; ORGANISM: Staphylococcus epidermidis  
US-09-134-001C-5314

Query Match 100.0%; Score 51; DB 2; Length 930;  
Best Local Similarity 100.0%; Pred. No. 2.8;  
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9  
|||||||  
Db 369 TYTFTDYVD 377

RESULT 8

US-09-147-405B-15  
; Sequence 15, Application US/09147405B  
; Patent No. 6733758  
; GENERAL INFORMATION:  
; APPLICANT: Guss, Bengt  
; APPLICANT: Nilsson, Martin  
; APPLICANT: Frykberg, Lars  
; APPLICANT: Flock, Jan-Ingmar  
; APPLICANT: Lindberg, Martin  
; TITLE OF INVENTION: Fibrinogen Binding Protein Originating from  
; TITLE OF INVENTION: Coagulase-Negative Staphylococcus  
; FILE REFERENCE: guss 09/147405  
; CURRENT APPLICATION NUMBER: US/09/147,405B  
; CURRENT FILING DATE: 1999-04-11  
; PRIOR APPLICATION NUMBER: PCT/SE97/10191  
; PRIOR FILING DATE: 1997-06-18  
; PRIOR APPLICATION NUMBER: SE 9602496-3  
; PRIOR FILING DATE: 1996-06-20  
; NUMBER OF SEQ ID NOS: 15  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 15  
; LENGTH: 1092  
; TYPE: PRT  
; ORGANISM: Staphylococcus epidermidis  
US-09-147-405B-15

Query Match 100.0%; Score 51; DB 2; Length 1092;  
Best Local Similarity 100.0%; Pred. No. 3.3;  
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9  
|||||||



Db 372 TYTFTDYVD 380

RESULT 22

US-10-724-972A-5309

; Sequence 5309, Application US/10724972A

; Publication No. US20040147734A1

; GENERAL INFORMATION:

; APPLICANT: Doucette-Stamm, Lynn

; APPLICANT: Bush, David

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES  
RELATING TO STAPHYLOCOCCUS

; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND  
THERAPEUTICS

; FILE REFERENCE: PATH03-16

; CURRENT APPLICATION NUMBER: US/10/724,972A

; CURRENT FILING DATE: 2003-12-01

; PRIOR APPLICATION NUMBER: 09/450,969

; PRIOR FILING DATE: 1999-11-29

; PRIOR APPLICATION NUMBER: 09/134,001

; PRIOR FILING DATE: 1998-08-13

; PRIOR APPLICATION NUMBER: 60/064,964

; PRIOR FILING DATE: 1997-11-08

; PRIOR APPLICATION NUMBER: 60/055,779

; PRIOR FILING DATE: 1997-08-14

; NUMBER OF SEQ ID NOS: 7544

; SEQ ID NO 5309

; LENGTH: 930

; TYPE: PRT

; ORGANISM: S.epidermidis

US-10-724-972A-5309

Query Match 100.0%; Score 51; DB 4; Length 930;

Best Local Similarity 100.0%; Pred. No. 9.7;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TYTFTDYVD 9

|||||||

Db 369 TYTFTDYVD 377

SEQ iD no. 10

RESULT 2

US-09-134-001C-5314

; Sequence 5314, Application US/09134001C

; Patent No. 6380370

; GENERAL INFORMATION:

; APPLICANT: Lynn Doucette-Stamm et al

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES  
RELATING TO STAPHYLOCOCCUS

; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND  
THERAPEUTICS

; FILE REFERENCE: GTC-007

; CURRENT APPLICATION NUMBER: US/09/134,001C

; CURRENT FILING DATE: 1998-08-13

; PRIOR APPLICATION NUMBER: US 60/064,964

; PRIOR FILING DATE: 1997-11-08

; PRIOR APPLICATION NUMBER: US 60/055,779

; PRIOR FILING DATE: 1997-08-14

; NUMBER OF SEQ ID NOS: 5674

; SEQ ID NO 5314

; LENGTH: 930

; TYPE: PRT

; ORGANISM: Staphylococcus epidermidis

US-09-134-001C-5314

Query Match 99.9%; Score 4820; DB 2; Length 930;  
Best Local Similarity 99.9%; Pred. No. 5.2e-256;  
Matches 929; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1  
LKKNLLTKKKPIANKSNKYAIRKFTVGTASIVIGAALLFGLGHNEAKAEENTVQ  
DVKDS 60

|||||

Db 1  
LKKNLLTKKKPIANKSNKYAIRKFTVGTASIVIGATLLFGLGHNEAKAEENTVQ  
DVKDS 60

Qy 61  
NMDELSDSNDQSSNEEKNDVINNSQSINTDDDNQIKKEETNSNDAIENRSKDIT  
QSTTN 120

|||||

Db 61  
NMDELSDSNDQSSNEEKNDVINNSQSINTDDDNQIKKEETNSNDAIENRSKDIT  
QSTTN 120

Qy 121  
VDENEATFLQKTPQDNTQLKEEVVKEPSSVESSNSSMDTAQQPSHTTINSEASIQT  
SDNE 180

|||||

Db 121  
VDENEATFLQKTPQDNTQLKEEVVKEPSSVESSNSSMDTAQQPSHTTINSEASIQT  
SDNE 180

Qy 181  
ENSRVSDFANSKIIESNTESNKEENTIEQPNKVREDSITSQPSSYKNIDEKISNQDEL  
LN 240

|||||

Db 181  
ENSRVSDFANSKIIESNTESNKEENTIEQPNKVREDSITSQPSSYKNIDEKISNQDEL  
LN 240

Qy 241  
LPINEYENKVRPLSTTSAQPSSKRVTVNQLAAEQGSNVNHLIKVTDQSITEGYDD  
SDGII 300

|||||

Db 241  
LPINEYENKVRPLSTTSAQPSSKRVTVNQLAAEQGSNVNHLIKVTDQSITEGYDD  
SDGII 300

Qy 301  
KAHDAENLIYDVTFEVDDKVKSGDTMTVNIDKNTVPSDLTDSFAIPKIKDNSGEII  
ATGT 360

|||||

Db 301  
KAHDAENLIYDVTFEVDDKVKSGDTMTVNIDKNTVPSDLTDSFAIPKIKDNSGEII  
ATGT 360

Qy 361  
YDNTNKQITYTFTDYVDKYENIKAHLKLTSYIDKSKVPNNNTKLDVEYKTALSS  
VNKTIT 420

|||||

Db 361  
YDNTNKQITYTFTDYVDKYENIKAHLKLTSYIDKSKVPNNNTKLDVEYKTALSS  
VNKTIT 420

Qy 421  
VEYQKPNENRTANLQSMFTNIDTKNHTVEQTIYINPLRYSAKETNVNISGNGDEG  
STIID 480

|||||

Db 421  
VEYQKPNENRTANLQSMFTNIDTKNHTVEQTIYINPLRYSAKETNVNISGNGDEG  
STIID 480

Qy 481  
DSTIIKVYKVGDNQNLPSNRIDYSEYEDVTNDDYAQLGNNNDVNINFGNIDSP  
YIIKV 540

|||||

DSTIIKVYKVGDNQNLPDSNRIYDYSEYEDVTNDDYAQLGNNNDVNINFGNIDSP  
YIIKV 540

ISKYDPNKDDYTTIIQQTVTMQTTINEYTGFEFRTASYDNTIAFSTSSGQGQGDLPPE  
KTYK 600

ISKYDPNKDDYTTIQQTVMQTTINEYTGERTASYDNTIAFSTSSGQGQGDLPPE  
KTYK 600

IGDYVWEDVDKDG IQNTNDNEKPLSNVLVTLTYPDGTSKSVRTDEEGKYQFDGL  
KNG LTY 660

IGDYVWEDVDKDGIQNTNDNEKPLSNVLVTLTYPDGTSKSVRTDEEGKYQFDGL  
KNGLT 660

KITFETPEGYTPTLKHS GTNPALDSEGN SVWVTINGQDDMTIDSGFYQTPKYSLG  
NYVWY 720

KITFETPEGYTPTLKHSGTNPALDSEGNVWVTINGQDDMTIDSGFYQTPKYSLG  
NYVWY 720

DTNKDGIQGDDEKGISGVKVTCLKDENGNIISTTTTDENGKYQFDNLNSGNYIVHF  
DKPSG 780

DTNKDGIQGDDEKGISGVKVTCLKDENGNIISTTTTDENGKYQFDNLNSGNYIVHF  
DKPSG 780

MTQTTTDSGDDDEQDADGEEVHVTITDHDDFSIDNGYYDDSDSDSDSDSDSDSDSDSDSDSDSDSD 840

MTQTTTDSGDDDEQDADGEEVHVTITDHDDFSIDNGYYDDSDSDSDSDSDSDSDSDSDSDSDSDSD 840

Qy 841  
SDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSGLDNSSDKNTKDKLPDTG  
ANEDH 900

|||||  
Db 841  
SDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSDSGLDNSSDKNTKDKLPDTG  
ANEDH 900

Qy 901 DSKGTLLGALFAGLGALLLGKRRKNRKNKN 930  
|||||  
Db 901 DSKGTLLGALFAGLGALLLGKRRKNRKNKN 930

RESULT 3  
US-11-208-208-5314  
; Sequence 5314, Application US/11208208  
; Publication No. US20070053936A1  
; GENERAL INFORMATION:  
; APPLICANT: Lynn Doucette-Stamm et al  
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES  
RELATING TO STAPHYLOCOCCUS  
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND  
THERAPEUTICS  
; FILE REFERENCE: 032796-101  
; CURRENT APPLICATION NUMBER: US/11/208,208  
; CURRENT FILING DATE: 2005-08-22  
; PRIOR APPLICATION NUMBER: US/10/902,441  
; PRIOR FILING DATE: 2004-07-30  
; PRIOR APPLICATION NUMBER: US 09/134,001  
; PRIOR FILING DATE: 1998-08-13  
; PRIOR APPLICATION NUMBER: US 60/064,964  
; PRIOR FILING DATE: 1997-11-08  
; PRIOR APPLICATION NUMBER: US 60/055,779  
; PRIOR FILING DATE: 1997-08-14  
; NUMBER OF SEQ ID NOS: 5676  
; SEQ ID NO 5314  
; LENGTH: 930  
; TYPE: PRT  
; ORGANISM: Staphylococcus epidermidis  
US-11-208-208-5314

Query Match 99.9%; Score 4820; DB 7; Length 930;  
Best Local Similarity 99.9%; Pred. No. 9.1e-200;  
Matches 929; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1  
LKKNLLTKKKPIANKSNKYAIRKFTVGTASIVIGAALLFGLGHNEAKAEENTVQ  
DVKDS 60

|||||

Db 1  
LKKNLLTKKKPIANKSNKYAIRKFTVGTASIVIGATLLFGLGHNEAKAEENTVQ  
DVKDS 60

Qy 61  
NMDDELSDSNDQSSNEEKNDVINNSQSINTDDDNQIKKEETNSNDAIENRSKDIT  
QSTTN 120

|||||

Db 61  
NMDDELSDSNDQSSNEEKNDVINNSQSINTDDDNQIKKEETNSNDAIENRSKDIT  
QSTTN 120

Qy 121  
VDENEATFLQKTPQDNTQLKEEVVKEPSSVESSNSSMDTAQQPSHTTINSEASIQT  
SDNE 180

|||||

Db 121  
VDENEATFLQKTPQDNTQLKEEVVKEPSSVESSNSSMDTAQQPSHTTINSEASIQT  
SDNE 180

Qy 181  
ENSRVSDFANSKIIESNTESNKEENTIEQPNKVREDSITSQPSSYKNIDEKISNQDEL  
LN 240

|||||

Db 181  
ENSRVSDFANSKIIESNTESNKEENTIEQPNKVREDSITSQPSSYKNIDEKISNQDEL  
LN 240

Qy 241  
LPINEYENKVRPLSTTSAQPSSKRVTVNQLAAEQGSNVNHLIKVTDQSITEGYDD  
SDGII 300

|||||

Db 241  
LPINEYENKVRPLSTTSAQPSSKRVTVNQLAAEQGSNVNHLIKVTDQSITEGYDD  
SDGII 300

Qy 301  
KAHDAENLIYDVTFEVDDKVKSGDTMTVNIDKNTVPSDLTDSFAIPKIKDNSGEII  
ATGT 360

|||||

Db 301  
KAHDAENLIYDVTFEVDDKVKSGDTMTVNIDKNTVPSDLTDSFAIPKIKDNSGEII  
ATGT 360

Qy 361  
YDNTNKQITYTFTDYVDKYENIKAHLKLTSYIDKSKVPNNNTKLDVEYKTALSS  
VNKTIT 420

|||||

Db 361  
YDNTNKQITYTFTDYVDKYENIKAHLKLTSYIDKSKVPNNNTKLDVEYKTALSS  
VNKTIT 420

Qy 421  
VEYQKPNENRTANLQSMFTNIDTKNHTVEQTIYNPLRYSAKETNVNISGNGDEG  
STIID 480

|||||

Db 421  
VEYQKPNENRTANLQSMFTNIDTKNHTVEQTIYNPLRYSAKETNVNISGNGDEG  
STIID 480

Qy 481  
DSTIIKVYKVGDNQNLPSNRIYDYSEYEDVTNDDYAQLGNNNDVNINFGNIDSP  
YIIKV 540

|||||

Db 481  
DSTIIKVYKVGDNQNLPSNRIYDYSEYEDVTNDDYAQLGNNNDVNINFGNIDSP  
YIIKV 540

Qy 541  
ISKYDPNKDDYTTIQQTVTMQTTINEYTGEFRTASYDNTIAFSTSSGQQGQDLPPE  
KTYK 600

|||||

Db 541  
ISKYDPNKDDYTTIQQTVTMQTTINEYTGEFRTASYDNTIAFSTSSGQQGQDLPPE  
KTYK 600

Qy 601  
IGDYVWEDVDKDG IQNTNDNEKPLSNVLVTLTYPDGTSKSVRTDEEGKYQFDGL  
KNGLTY 660

|||||

Db 601  
IGDYVWEDVDKDG IQNTNDNEKPLSNVLVTLTYPDGTSKSVRTDEEGKYQFDGL  
KNGLTY 660





DE Staphylococcus epidermidis fibrinogen binding protein fig gene.  
XX  
KW Fibrinogen binding protein; fig gene; aggregation; infection;  
KW coagulase-negative Staphylococcus; therapy; diagnosis; immunisation;  
KW vaccine; ss.  
XX  
OS Staphylococcus epidermidis; strain HB.  
XX  
FH Key Location/Qualifiers  
FT RBS 22..27  
FT /\*tag= a  
FT CDS 33..3311  
FT /\*tag= b  
FT sig\_peptide 33..185  
FT /\*tag= c  
FT mat\_peptide 186..3308  
FT /\*tag= d  
FT repeat\_region 2502..3151  
FT /\*tag= e  
FT /note= "contains 18-bp sequence unit, repeated 36 times,  
FT consensus GATTCXGATTCXGAXAGX, encoding Asp-Ser  
FT dipeptides"  
FT repeat\_unit 2502..2519  
FT /\*tag= f  
FT /number= 1  
FT repeat\_unit 2520..2531  
FT /\*tag= g  
FT /number= 2  
FT /note= "truncated repeat unit"  
FT repeat\_unit 2532..2549  
FT /\*tag= h  
FT /number= 3  
FT repeat\_unit 2550..2567  
FT /\*tag= i  
FT /number= 4  
FT repeat\_unit 2568..2585  
FT /\*tag= j  
FT /number= 5  
FT repeat\_unit 2586..2603  
FT /\*tag= k  
FT /number= 6  
FT repeat\_unit 2604..2621  
FT /\*tag= l  
FT /number= 7  
FT repeat\_unit 2622..2639  
FT /\*tag= m

FT            /number= 8  
FT repeat\_unit 2640. .2657  
FT            /\*tag= n  
FT            /number= 9  
FT repeat\_unit 2658. .2675  
FT            /\*tag= o  
FT            /number= 10  
FT repeat\_unit 2676. .2693  
FT            /\*tag= p  
FT            /number= 11  
FT repeat\_unit 2694. .2711  
FT            /\*tag= q  
FT            /number= 12  
FT repeat\_unit 2712. .2729  
FT            /\*tag= r  
FT            /number= 13  
FT repeat\_unit 2730. .2747  
FT            /\*tag= s  
FT            /number= 14  
FT repeat\_unit 2748. .2765  
FT            /\*tag= t  
FT            /number= 15  
FT repeat\_unit 2766. .2783  
FT            /\*tag= u  
FT            /number= 16  
FT repeat\_unit 2784. .2801  
FT            /\*tag= v  
FT            /number= 17  
FT repeat\_unit 2802. .2819  
FT            /\*tag= w  
FT            /number= 18  
FT repeat\_unit 2820. .2837  
FT            /\*tag= x  
FT            /number= 19  
FT repeat\_unit 2838. .2855  
FT            /\*tag= y  
FT            /number= 20  
FT repeat\_unit 2856. .2873  
FT            /\*tag= z  
FT            /number= 21  
FT repeat\_unit 2874. .2891  
FT            /\*tag= aa  
FT            /number= 22  
FT repeat\_unit 2892. .2909  
FT            /\*tag= ab  
FT            /number= 23

FT repeat\_unit 2910. .2927  
FT /\*tag= ac  
FT /number= 24  
FT repeat\_unit 2928. .2945  
FT /\*tag= ad  
FT /number= 25  
FT repeat\_unit 2944. .2961  
FT /\*tag= ae  
FT /number= 26  
FT repeat\_unit 2962. .2979  
FT /\*tag= af  
FT /number= 27  
FT repeat\_unit 2980. .2997  
FT /\*tag= ag  
FT /number= 28  
FT repeat\_unit 2998. .3015  
FT /\*tag= ah  
FT /number= 29  
FT repeat\_unit 3016. .3033  
FT /\*tag= ai  
FT /number= 30  
FT repeat\_unit 3034. .3051  
FT /\*tag= aj  
FT /number= 31  
FT repeat\_unit 3052. .3069  
FT /\*tag= ak  
FT /number= 32  
FT /note= "slight disruption of consensus"  
FT repeat\_unit 3070. .3087  
FT /\*tag= al  
FT /number= 33  
FT repeat\_unit 3088. .3105  
FT /\*tag= am  
FT /number= 34  
FT /note= "slight disruption of consensus"  
FT repeat\_unit 3106. .3123  
FT /\*tag= an  
FT /number= 35  
FT repeat\_unit 3124. .3151  
FT /\*tag= ao  
FT /number= 36  
FT /note= "slight disruption of consensus"  
FT repeat\_unit 3457. .3463  
FT /\*tag= ap  
FT /rpt\_type= INVERTED  
FT repeat\_unit 3471. .3477

FT /\*tag= aq  
 FT /rpt\_type= INVERTED  
 FT repeat\_unit 3571..3578  
 FT /\*tag= ar  
 FT /rpt\_type= INVERTED  
 FT repeat\_unit 3584..3591  
 FT /\*tag= as  
 FT /rpt\_type= INVERTED  
 XX  
 PN WO9748727-A1.  
 XX  
 PD 24-DEC-1997.  
 XX  
 PF 18-JUN-1997; 97WO-SE001091.  
 XX  
 PR 20-JUN-1996; 96SE-00002496.  
 XX  
 PA (GUSS/) GUSS B.  
 PA (NILS/) NILSSON M.  
 PA (FRYK/) FRYKBERG L.  
 PA (FLOC/) FLOCK J.  
 PA (LIND/) LINDBERG M.  
 XX  
 PI Guss B, Nilsson M, Frykberg L, Flock J, Lindberg M;  
 XX  
 DR WPI; 1998-063079/06.  
 DR P-PSDB; AAW41602.  
 XX  
 PT Fibrinogen-binding protein from coagulase-negative Staphylococcus - used  
 PT for prevention, treatment and diagnosis of Staphylococcus infection.  
 XX  
 PS Example 3; Fig 6; 45pp; English.  
 XX  
 CC The fig gene of coagulase-negative Staphylococcus epidermidis HB codes  
 CC for a 1092-amino acid fibrinogen binding protein (see AAW41602)  
 CC designated FIG. To isolate the gene, a phage library of HB was screened  
 CC for binding to fibrinogen-coated wells. Clone pSE100 was obtained that  
 CC encoded an incomplete FIG protein. The 3' and 5' ends were obtained by  
 CC screening chromosomal DNA using a probe generated by PCR (see AAV04280-  
 CC 81). The fig gene can be used in the recombinant production of FIG, and  
 CC also as a DNA vaccine to protect humans and animals against coagulase-  
 CC negative Staphylococcus infection. Probes based on the fig gene can be  
 CC used to identify S. epidermidis; fig is present in all strains of this  
 CC species but not in other staphylococci. Probes can also be used to  
 CC fingerprint strains (e.g. to identify a source of infection) and to  
 CC isolate similar genes from other species. (Updated on 17-OCT-2003 to

CC standardise OS field)

XX

SQ Sequence 3600 BP; 1418 A; 554 C; 665 G; 963 T; 0 U; 0 Other;

Query Match 81.9%; Score 2438.8; DB 2; Length 3600;

Best Local Similarity 94.8%; Pred. No. 0;

Matches 2559; Conservative 0; Mismatches 127; Indels 14; Gaps 3;

Qy 66 TACATTGAAATAGTCAAAGATAAGGAGTTTTTTATGATTA--  
AAAAAAAATAATTTACTAA 123

|||||

Db 1

TACATTGAAATAGTCAAAGAAAAGGAGTTTTTTATGATTAATAAAAAAATAA  
TTTACTAA 60

Qy 124  
CTAAAAAGAAACCTATAGCAAATAAATCCAATAAATATGCAATTAGAAAATT  
CACAGTAG 183

|||||

Db 61

CTAAAAAGAAACCTATAGCAAATAAATCCAATAAATATGCAATTAGAAAATT  
CACAGTAG 120

Qy 184  
GTACAGCGTCTATTGTAATAGGTGCAGCATTATTGTTTGGTTTAGGTCATAAT  
GAGGCCA 243

|||||

Db 121

GTACAGCGTCTATTGTAATAGGTGCAACATTATTGTTTGGTTTAGGTCATAAT  
GAGGCCA 180

Qy 244  
AAGCTGAGGAGAATACAGTACAAGACGTTAAAGATTTCGAATATGGATGATG  
AATTATCAG 303

|||||

Db 181

AAGCCGAGGAGAATTTCAGTACAAGACGTTAAAGATTTCGAATACGGATGATG  
AATTATCAG 240

Qy 304  
ATAGCAATGATCAGTCCAGTAATGAAGAAAAGAATGATGTAATCAATAATAG  
TCAGTCAA 363

|||||

Db 241

ACAGCAATGATCAGTCTAGTGATGAAGAAAAGAATGATGTGATCAATAATAA  
TCAGTCAA 300

Qy 364 TAAACACCGATGATGATAACCAAATA---  
AAAAAAGAAGAAACGAATAGCAACGATGCCA 420

||||| ||| ||||| ||||||||| | ||| ||

Db 301  
TAAACACCGACGATAATAACCAAATAATTAAAAAGAAGAAACGAATACT  
ACGATGGCA 360

Qy 421  
TAGAAAATCGCTCTAAAGATATAACACAGTCAACAACAAATGTAGATGAAAA  
CGAAGCAA 480

||||| ||| |||| ||| |||||||||

Db 361  
TAGAAAAACGCTCAGAAGATAGAACAGAGTCAACAACAAATGTAGATGAAA  
ACGAAGCAA 420

Qy 481  
CATTTTACAAAAGACCCCTCAAGATAATACTCAGCTTAAAGAAGAAGTGGT  
AAAAGAAC 540

||||||||| ||||| ||||| |||||

Db 421  
CATTTTACAAAAGACCCCTCAAGATAATACTCATCTTACAGAAGAAGAGGT  
AAAAGAAT 480

Qy 541  
CCTCATCAGTCGAATCCTCAAATTCATCAATTGGATACTGCCCAACAACCATCT  
CATACAA 600

||||||||| ||||||||| |||||

Db 481  
CCTCATCAGTCGAATCCTCAAATTCATCAATTGATACTGCCCAACAACCATCT  
CACACAA 540

Qy 601  
CAATAAATAGTGAAGCATCTATTCAAACAAGTGATAATGAAGAAAATTCCCG  
CGTATCAG 660

||||| ||| ||| ||||||||| ||| ||| | |||||

Db 541  
CAATAAATAGAGAAGAATCTGTTCAAACAAGTGATAATGTAGAAGATTCACA  
CGTATCAG 600

Qy 661  
ATTTTGCTAACTCTAAAATAATAGAGAGTAACACTGAATCCAATAAAGAAGA  
GAATACTA 720

||||||||| ||||||||| |||||||||

ATTTTGCTAACTCTAAAATAAAAGAGAGTAACACTGAATCTGGTAAAGAAGA  
GAATACTA 660

TAGAGCAACCTAACAAAGTAAGAGAAGATTCAATAACAAGTCAACCGTCTAG  
CTATAAAA 780

TAGAGCAACCTAATAAAGTAAAAGAAGATTCAACAACAAGTCAGCCGTCTGG  
CTATACAA 720

ATATAGATGAAAAATTTCAAATCAAGATGAGTTATTAAATTTACCAATAAA  
TGAATATG 840

ATATAGATGAAAAATTTCAAATCAAGATGAGTTATTAAATTTACCAATAAA  
TGAATATG 780

AAAATAAGGTTAGACCGTTATCTACAACATCTGCCCAACCATCGAGTAAGCG  
TGTAACCG 900

AAAATAAGGCTAGACCATTATCTACAACATCTGCCCAACCATCGATTAAACG  
TGTAACCG 840

TAAATCAATTAGCGGCAGAACAAGGTTCGAATGTTAATCATTTAATTAAAGT  
TACTGATC 960

TAAATCAATTAGCGGCGGAACAAGGTTCGAATGTTAACCATTTAATTAAAGT  
TACTGATC 900

AAAGTATTACTGAAGGATATGATGATAGTGATGGTATTATTAAAGCACATGA  
TGCTGAAA 1020

AAAGTATTACTGAAGGATATGATGATAGTGAAGGTGTTATTAAAGCACATGA  
TGCTGAAA 960

Qy 1021  
ACTTAATCTATGATGTAACCTTTTGAAGTAGATGATAAGGTGAAATCTGGTGAT  
ACGATGA 1080

|||||

Db 961  
ACTTAATCTATGATGTAACCTTTTGAAGTAGATGATAAGGTGAAATCTGGTGAT  
ACGATGA 1020

Qy 1081  
CAGTGAATATAGATAAGAATACAGTTCCATCAGATTTAACCGATAGTTTTGC  
AATACCAA 1140

|||||

Db 1021  
CAGTGGATATAGATAAGAATACAGTTCCATCAGATTTAACCGATAGCTTTAC  
AATACCAA 1080

Qy 1141  
AAATAAAAGATAATTCTGGAGAAATCATCGCTACAGGTACTTATGACAACAC  
AAATAAAC 1200

|||||

Db 1081  
AAATAAAAGATAATTCTGGAGAAATCATCGCTACAGGTACTTATGATAACAA  
AAATAAAC 1140

Qy 1201  
AAATTACCTACACTTTTACAGATTATGTAGATAAATATGAAAATATTAAAGC  
GCACCTTA 1260

|||||

Db 1141  
AAATCACCTATACTTTTACAGATTATGTAGATAAGTATGAAAATATTAAAGC  
ACACCTTA 1200

Qy 1261  
AATTAACATCATACATTGATAAATCAAAGGTTCCAAATAATAACACTAAGTT  
AGATGTAG 1320

|||||

Db 1201  
AATTAACGTCATACATTGATAAATCAAAGGTTCCAAATAATAATACCAAGTT  
AGATGTAG 1260

Qy 1321  
AATATAAGACGGCCCTTTCATCAGTAAATAAAACAATTACGGTTGAATATCA  
AAAACCTA 1380

|||||



Db 1261  
AATATAAAACGGCCCTTTCATCAGTAAATAAAACAATTACGGTTGAATATCA  
AAGACCTA 1320

Qy 1381  
ACGAAAATCGGACTGCTAACCTTCAAAGTATGTTACAAACATAGATACGAA  
AAACCATA 1440

|||||

Db 1321  
ACGAAAATCGGACTGCTAACCTTCAAAGTATGTTTACAAATATAGATACGAA  
AAATCATA 1380

Qy 1441  
CAGTTGAGCAAACGATTTATATTAACCCTCTTCGTTATTCAGCCAAAGAAACA  
AATGTAA 1500

|||||

Db 1381  
CAGTTGAGCAAACGATTTATATTAACCCTCTTCGTTATTCAGCCAAAGGAAACA  
AATGTAA 1440

Qy 1501  
ATATTTTCAGGGAATGGCGATGAAGGTTCAACAATTATCGACGATAGTACAAT  
CATTAAAG 1560

|||||

Db 1441  
ATATTTTCAGGGAATGGTGATGAAGGTTCAACAATTATAGACGATAGCACAAT  
AATTAAAG 1500

Qy 1561  
TTTATAAGGTTGGAGATAATCAAAATTTACCAGATAGTAACAGAATTTATGA  
TTACAGTG 1620

|||||

Db 1501  
TTTATAAGGTTGGAGATAATCAAAATTTACCAGATAGTAACAGAATTTATGA  
TTACAGTG 1560

Qy 1621  
AATATGAAGATGTCACAAATGATGATTATGCCCAATTAGGAAATAATAATGA  
CGTGAATA 1680

|||||

Db 1561  
AATATGAAGATGTCACAAATGATGATTATGCCCAATTAGGAAATAATAATGA  
TGTGAATA 1620

Qy 1681

TTAATTTTGGTAATATAGATTCACCATATATTATTAAAGTTATTAGTAAATAT  
GACCCTA 1740

|||||

Db 1621

TTAATTTTGGTAATATAGATTCACCATATATTATTAAAGTTATTAGTAAATAT  
GACCCTA 1680

Qy 1741

ATAAGGACGATTACACGACGATACAGCAAACCTGTGACAATGCAAACGACTAT  
AAATGAGT 1800

|||||

Db 1681

ATAAGGATGATTACACGACTATACAGCAAACCTGTGACAATGCAGACGACTAT  
AAATGAGT 1740

Qy 1801

ATACTGGTGAGTTTAGAACAGCATCCTATGATAATACAATTGCTTTCTCTACA  
AGTTCAG 1860

|||||

Db 1741

ATACTGGTGAGTTTAGAACAGCATCCTATGATAATACAATTGCTTTCTCTACA  
AGTTCAG 1800

Qy 1861

GTCAAGGACAAGGTGACTTGCCTCCTGAAAAAACTTATAAAATCGGAGATTA  
CGTATGGG 1920

|||||

Db 1801

GTCAAGGACAAGGTGACTTGCCTCCTGAAAAAACTTATAAAATCGGAGATTA  
CGTATGGG 1860

Qy 1921

AAGATGTAGATAAAGATGGTATTCAAATACAAATGATAATGAAAAACCGCT  
TAGTAATG 1980

|||||

Db 1861

AAGATGTAGATAAAGATGGTATTCAAATACAAATGATAATGAAAAACCGCT  
TAGTAATG 1920

Qy 1981

TATTGGTAACTTTGACGTATCCTGATGGAACCTCAAATCAGTCAGAACAGAT  
GAAGAGG 2040

|||||

Db 1921  
TATTGGTAACTTTGACGTATCCTGATGGAACCTCAAATCAGTCAGAACAGAT  
GAAGATG 1980

Qy 2041  
GGAAATATCAATTTGATGGGTAAAAAACGGATTGACTTATAAAATTACATT  
CGAAACAC 2100

|||||

Db 1981  
GGAAATATCAATTTGATGGATTGAAAAACGGATTGACTTATAAAATTACATT  
CGAAACAC 2040

Qy 2101  
CGGAAGGATATACGCCGACGCTTAAACATTCAGGAACAAATCCTGCACTAGA  
CTCAGAAG 2160

| |||||

Db 2041  
CTGAAGGATATACGCCGACGCTTAAACATTCAGGAACAAATCCTGCACTAGA  
CTCAGAAG 2100

Qy 2161  
GCAATTCTGTATGGGTAACTATTAACGGACAAGACGATATGACTATTGATAG  
CGGATTTT 2220

| |||||

Db 2101  
GTAATTCTGTATGGGTAACTATTAATGGACAAGACGATATGACGATTGATAG  
TGGATTTT 2160

Qy 2221  
ATCAAACACCTAAATATAGCTTAGGGAACTATGTATGGTATGACACTAATAA  
AGATGGTA 2280

|||||

Db 2161  
ATCAAACACCTAAATACAGCTTAGGGAACTATGTATGGTATGACACTAATAA  
AGATGGTA 2220

Qy 2281  
TTCAAGGTGATGATGAAAAAGGAATCTCTGGAGTAAAAGTGACGTAAAAGA  
TGAAAACG 2340

|||||

Db 2221  
TTCAAGGTGATGATGAAAAAGGAATCTCTGGAGTAAAAGTGACGTAAAAGA  
TGAAAACG 2280

Qy 2341  
GAAATATCATTTAGTACAACAACAACCTGATGAAAATGGAAAGTATCAATTTGA  
TAATTTAA 2400

|||||

Db 2281  
GAAATATCATTTAGTACAACCTACAACCGATGAAAATGGAAAGTATCAATTTGA  
TAATTTAA 2340

Qy 2401  
ATAGTGGTAATTATATTGTTTCATTTTGATAAACCTTCAGGTATGACTCAAACA  
ACAACAG 2460

|||||

Db 2341  
ATAGTGGTAATTATATTGTTTCATTTTGATAAACCTTCAGGTATGACTCAAACA  
ACAACAG 2400

Qy 2461  
ATTCTGGTGATGATGACGAACAGGATGCTGATGGGGAAGAAGTCCATGTAAC  
AATTACTG 2520

|||||

Db 2401  
ATTCTGGTGATGATGACGAACAGGATGCTGATGGGGAAGAAGTTCATGTAAC  
AATTACTG 2460

Qy 2521  
ATCATGATGACTTTAGTATAGATAACGGATACTATGATGACGACTCAGATTC  
AGATAGTG 2580

|||||

Db 2461  
ATCATGATGACTTTAGTATAGATAACGGATACTATGATGACGAATCGGATTC  
CGATAGTG 2520

Qy 2581  
ATTCAGACTCAGATAGCGACGACTCAGACTCCGATAGCGATTCCGACTCAGA  
CAGCGACT 2640

|||||

Db 2521 ACTCAGA-----  
CAGCGACTCAGATTCCGATAGTGATTCAGACTCCGATAGCGACT 2571

Qy 2641  
CAGATTCCGATAGTGATTCAGATTCAGACAGTGACTCAGACTCAGATAGTGA  
TTCAGATT 2700

|||||

Db 2572  
CGGATTCAGACAGCGACTCAGATTCAGACAGCGACTCGGATTCTGATAGCGA  
CTCGGATT 2631

Qy 2701

CAGACAGCGATTCCGACTCAGACAGTGACTCAGGATTAGACAATAGCTCAGA  
TAAGAATA 2760



Db 2632

CAGACAGCGACTCAGACTCAGACAGTGATTCAGATTCAGACAGCGACTCAGA  
TTCCGATA 2691